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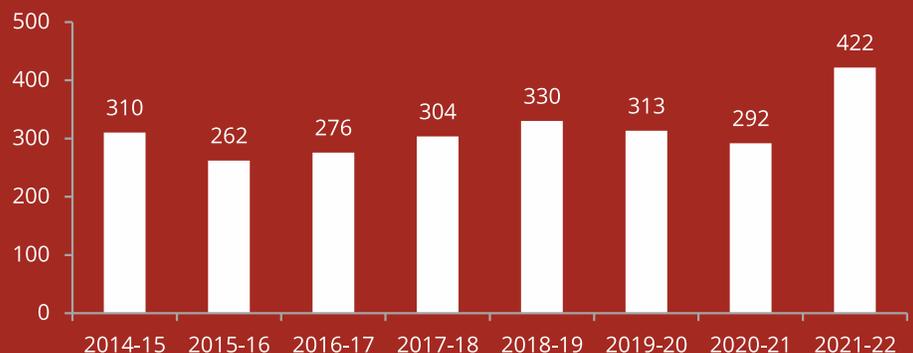
Study on India's Export Competitiveness

By MVIRDC World Trade Center Mumbai

Highlights of the Study:

- Identifies 100 champion export products
- Proposes eight key Policy Recommendations
- Outlines 10 key trends in India's exports

India's merchandise exports (USD billion)





Bharat Ratna Sir M. Visvesvaraya

(15 September, 1860 - 14 April, 1962)

FIFTY YEARS AND COUNTING

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MVIRDC became a member of the World Trade Centers Association, New York, in 1971 and established the World Trade Center Mumbai, which is the first World Trade Center in India. MVIRDC, having spearheaded the movement of World Trade Centers in India with the establishment of WTCs at Bhubaneswar, Goa and Jaipur, is assisting MSMEs in these regions through various Trade Research, Trade Promotion, Trade Infrastructure including Commercial Offices, Business Center, Trade Facilitation Services and Trade Education Programmes.

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FOREWORD

India's fiscal year 2021-22 was a watershed in its foreign trade history, as the country passed the USD 400 billion mark in merchandise exports for the first time, with an annual growth rate of more than 40% over the previous year. This rapid expansion demonstrates India's standing as a dependable trade partner and a rising global supply chain centre.

I am sure that our economy will maintain its outstanding export performance in the following years, thanks to our vibrant entrepreneurial ecosystem and forward-thinking legislative efforts. This exceptional accomplishment will usher in a new age of economic expansion, headed by exports, and assist our country in breaking into the league of upper-middle-income nations, with a per capita income of more than USD 4,000 per year.

The Government of India has taken several proactive efforts to promote this export boom, including implementing the Refund of Duties and Taxes on Exported Products and Rebate of State and Central Levies and Taxes schemes, an interest subvention scheme for Micro, small & Medium Enterprises exporters, and the Transport and Marketing Assistance Scheme, to name a few. The recently announced Production Linked Incentive (PLI) scheme for 14 sectors will boost manufacturing production and improve the global competitiveness of local MSMEs.

More crucially, signing trade agreements with India's third largest trading partner, the UAE, and its twelfth largest trade partner, Australia, would increase export potential in the coming years. We are also negotiating trade agreements with the United Kingdom, European Union, Israel, Canada, and other nations to capitalize on previously untapped export prospects with these countries.

To promote the ease of cross-border trade, the government has diligently implemented the World Trade Organization's trade facilitation agreement. As a result of these efforts, the average cargo release time in air cargo complexes has decreased by 16% in the last year and by 12% in sea ports or inland container depots. Global competitiveness is heavily influenced by research and innovation. As a result of our growing innovation ecosystem, India's rating in the Global Innovation Index has risen from 81st in 2015-16 to 46th in 2021.

In the January-March 2022 quarter, the number of Indian patent applicants surpassed the number of non-Indian applicants in the Indian patent office for the first time in 11 years. I am hopeful that these variables will assist us in improving our world ranking in merchandise exports by 2025.

I am pleased to learn that the Visvesvaraya Industrial Research and Development Centre (MVIRDC), Mumbai, Maharashtra has prepared this report on Strengthening India's Export Competitiveness in the context of our export story's historic reversal. I praise MVIRDC for selecting 100 champion items that have fuelled our exports over the previous two decades and still have untapped export potential.

I am positive that the study's primary results will spark a well-informed public debate about how to achieve our latent export potential.

Suman Bery



एक कदम स्वच्छता की ओर



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Goodwill Message

India is at the cusp of becoming the fifth largest economy and the tenth largest global exporter. Avid readers of Indian history know that India was always a trade-oriented economy. But several millennia of foreign occupation hollowed out the core strengths of the Indian economy and it has taken us a long time to regroup and recoup our lost position on the global stage.

There is of course a long way to go. Our per capita income is just over \$2000. For a country of as diverse a skill pool and as resilient a society as ours, there can only be a significant upside to that statistic. Trade is an important marker of any economy's healthiness and by this yardstick, India is very much front and centre of the global affairs. There is a big upside to our economic growth and grassroots prosperity if sustained exports out of India keep to the trend witnessed in the post-pandemic era.

The financial year 2021-22 was the first time Indian goods exports crossed \$400-billion. Similarly, the services exports crossed \$250-billion and the \$674-billion total for the financial year made it the best ever year of exports. The first quarter of the financial year 2022-23 has also started well with goods exports clocking the highest ever quarterly figure of \$116-billion.

A slew of factor market reforms, process reforms, balanced fiscal and monetary handling of the pandemic and India's significant talent have come together to make this change happen. This is the strength on which Indian industry has to build on.

Sustained export growth requires the economy to be agile and competitive. It needs not just a whole of government approach but also the active participation of all stakeholders to build systemic capacities. This is where efforts of organizations like the M. Visvesvaraya Industrial Research and Development Centre (MVIRDC) are critical.

The efforts that MVIRDC has made towards creating an international trade ecosystem through setting up of the World Trade Centre in Mumbai are well-recognized. Deep-dive studies like this one on "India's Export Competitiveness" further add heft to the work done by this organization of national repute.

This study takes a thorough view of macro trends, sectoral trends as well as 6-digit harmonized code level analysis of how Indian exports are shaping up. It brings out opportunities to further finetune the policy environment. The report will also aid the industry in reimagining global trade landscape and reallocate their financial and operational resources towards tapping new product-market fits.

This study will aid Indian exporters, especially small firms, in understanding the potential areas of investments and improvements. I congratulate MVIRDC for undertaking this analysis. I also commend MVIRDC for their efforts towards developing a vibrant trade ecosystem in India.

(Aashish Chandorkar)

Counsellor – Non-Agriculture Market Access
Permanent Mission of India to the World Trade Organization, Geneva
Geneva, June 30, 2022

Preface

We are living in those rare moments when global supply chains are being redrawn by economic and geopolitical factors in ways that may redefine our economic relations with other countries. The pandemic has taught companies to make their supply chains more resilient by diversifying their sources of imports. The ongoing geopolitical tension in far eastern Europe may also trigger realignment of global supply chains.

India stands a chance to benefit from the ongoing shift in supply chain by becoming a reliable supplier of agro commodities, pharmaceuticals and other manufactured goods to the world. Already, India's exports of iron & steel, aluminum and other metal products has grown considerably last year as Chinese export of these goods was hit by production restriction imposed by the country on these industries to control pollution.

Indian government's proactive policy measures such as launch of Production Linked Incentive Schemes, signing new free trade agreements and increased thrust on infrastructure may increase the global competitiveness of local manufacturers and support growth in exports.

In this context, MVIRDC WTC Mumbai has prepared this research study to identify sectors where India has made extraordinary progress in exports and where there is still untapped export potential. The study identified 100 champion products across nine diverse manufacturing sectors where India has gained significant share in world exports in the last two decades. India's export of these 100 champion products grew multifold from a mere USD 3.8 billion in the year 2001 to USD 26.5 billion in 2019. These 100 products account for 8-9% of our overall merchandise exports.

I am confident that this study will be a useful reference for industry and policymakers to take focused efforts to maintain our export momentum in the identified sectors. The study has also suggested actionable policy measures based on a comprehensive primary survey from industry stakeholders in leather, gems & jewellery, ceramics, special economic zones and other segments of the export sector. I take this opportunity to thank all the participants who shared their valuable perspectives for this study.

This study is part of the continued efforts of MVIRDC WTC Mumbai to facilitate the country attain the milestone of USD 1 trillion merchandise exports by 2030. MVIRDC WTC Mumbai conducts more than 60 trade events, including interactive meetings with inbound foreign delegations every year to connect local industry to the global market. After the outbreak of the pandemic, the Center launched the new age digital platform wetrade.org to facilitate local MSMEs showcase their products online and connect with their overseas buyers at nominal cost.

MSMEs are the foundation of India's economic development as they contribute nearly 30% to GDP, 49% to exports and provide jobs to at least 120 million people. I sincerely believe that the share of MSMEs in our economy can be enhanced to 50% if we address MSMEs' challenges in accessing finance, skilled workforce, raw materials and technology at affordable cost.

As MVIRDC WTC Mumbai completes 50 years of service to the nation, the Center reaffirms its commitment to empower local MSMEs through its world-class trade facilities, trade education, trade promotion and trade research services.



Dr. Vijay Kalantri
Chairman
MVIRDC World Trade Center Mumbai

Executive Summary

Export is a very important source of economic growth and it is essential to sustain growth in this sector to attain the USD 5 trillion economy goal by 2025. Export has played a vital role in the economic growth miracle of east Asian Tigers such as South Korea, Hong Kong, Taiwan and Singapore. More recently, Asian countries such as Vietnam and Bangladesh have been pursuing export-led growth, which is responsible for the remarkable growth in per capita income in these countries.

Since the time of economic reforms in 1991, India has made remarkable progress in diversifying its export basket, especially in organic and inorganic chemicals, iron & steel, auto-components, gems & jewellery and agro commodities. This study documents the phenomenal growth in India's share in world exports in these sectors based on data from authentic sources such as ITC, Geneva and India's Ministry of Commerce. Based on this meticulous data analysis and comprehensive primary survey with industry and research institutions, the study identified at least 10 key trends in India's exports and proposed more than eight policy suggestions to promote exports.

One of the key outcomes of this study is the identification of 100 champion products where India's share in world exports has surpassed more than 25% in the last 25 years. In some product categories such as dyes & pigments, essential oil, agro commodities, iron & steel and aluminum, India has been generating surplus foreign exchange by becoming net exporter in the last 25 years. The aim of this study is to draw the attention of policymakers, think tanks and industry bodies to the key findings of this study and generate public discussion on how India can maintain export momentum in these identified products.

As the global supply chain is realigning, it is the most opportune time for India to assess its true export potential and take focused policy steps to address key challenges plaguing the export sector. The study identifies the need to support MSME sector through measures such as cluster development, skill training, setting up more testing and certification facilities and reform in special economic zone policy, to name a few. As we step into this age of fourth industrial revolution and climate change, the competitiveness in the global market will be also determined by technology adoption and sustainable manufacturing practices. Therefore, the traditional export sectors of textile and leather need to reinvent its export competitiveness by adopting 3D printing and sustainable waste management. These measures will strengthen the MSME ecosystem in the country and reverse the declining share of merchandise exports in GDP. The share of merchandise exports in GDP declined from 17% to 11% between 2013-14 and 2019-20.

The study has also identified key trends in India's services exports, which has been growing in the last two decades led by strong performance in IT services and other business services. At the same time, the study points to the need to reduce trade deficit in travel and intellectual property services through focused measures. We are confident that the key findings and policy recommendations will be the basis for further research and public discussion on "Promoting India's Export Competitiveness in the manufacturing and services sectors".

Acknowledgement

MVIRDC World Trade Center Mumbai sincerely acknowledges the contribution of experts from export promotion councils, industry and research institutions for sharing their valuable insights to this study. Particularly, we appreciate the perspectives shared by Dr. Arun Kumar Sarma, Director General, North East Centre for Technology Application and Reach (NECTAR), Mr. Sabyasachi Ray, Executive Director -GJEPC India, Mr. Sunil Rallan, CMD, Chennai Free Trade Zone, Dr. K.J. Sreeram, Director, CSIR-Central Leather Research Institute, Dr. Dinesh Singh Bisht, Scientist 'C', Quality Evaluation Laboratory - Spices Board (Ministry of Commerce and Industry, Government of India) and representatives from Morbi Ceramic Industry.

Research Team (MVIRDC World Trade Center Mumbai)

The Research Study has been conducted by Mr. Raja Narayanan, Manager, Research & Trade Promotion and Ms. Dhara Tolia, Manager, Research and Trade Promotion. The study has been designed by Mr. Abhishek Parab, Creative Designer.

Key Policy Suggestions and Findings

Gems & Jewellery

- The untapped export potential in the gems and jewellery sector stood at USD 31.7 billion in 2020.
- To realize this untapped potential, government may support the industry by taking following measures: rationalizing GST regime on precious metals, revision of duty drawback rates for gold/silver and revamping SEZ model

Special Economic Zones (SEZs)

- Government may support the SEZ sector by removing the net foreign exchange condition for SEZ Units
- Government may tax supplies from SEZs to domestic tariff area (DTA) on duty foregone principle only on the imported Inputs
- Government may allow reverse job work in SEZs so that SEZ units can provide after sales services to their clients in DTA

Leather

- Government may create more regional centres of national test laboratories for leather goods
- Government may establish design and fashion studios for leather sector across the country through a hub and spoke model
- Government may help the leather industry adopt artificial intelligence and 3D printing techniques to improve productivity and reduce cost in prototype development
- Government may set up Centers of Excellence in Industrial Training Institutes across various states to develop indigenous technologies for machine tools and industrial machinery manufacturing.

Ceramics

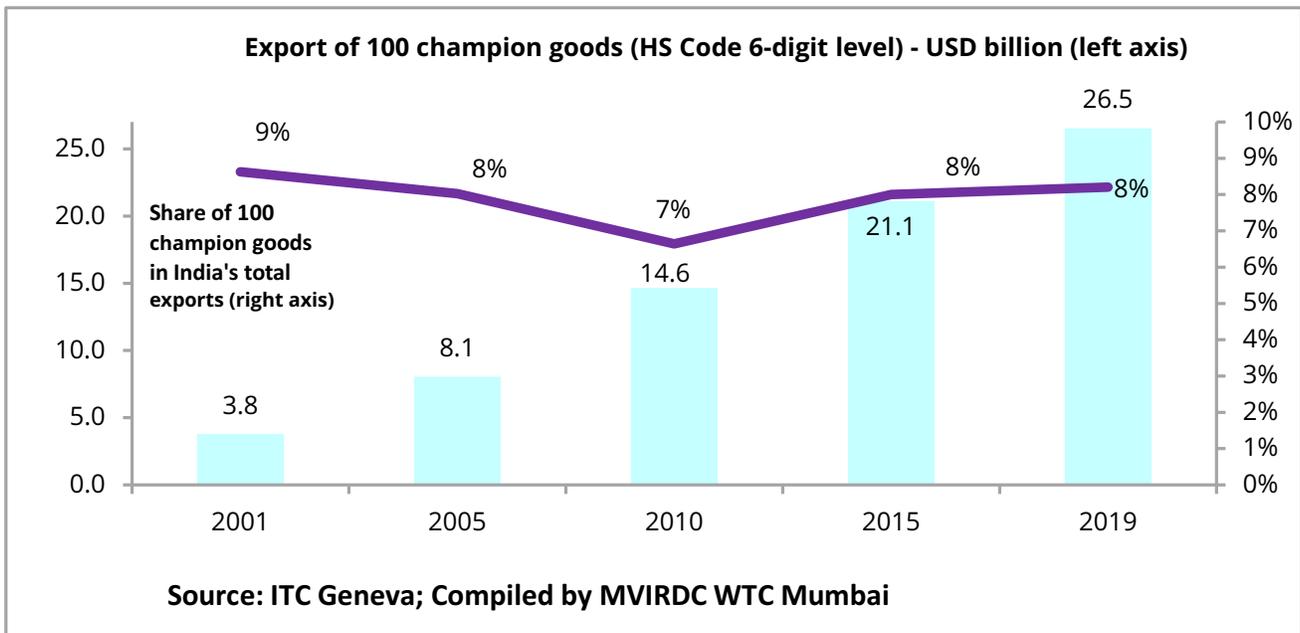
- Indian ceramic industry has established strong market presence in Europe, USA and Africa in the last several years. In recent months, however, Indian exporters are finding it difficult to compete with Spain, Italy and Brazil in these markets because of huge rise in ocean freight cost. Also, lack of container availability is hurting the export competitiveness of this sector. The government may ensure availability of containers for export-oriented units in Morbi ceramic clusters.

Key trends in exports

- India's exports to GDP ratio declined from 25% in 2013-14 to 19% in 2020-21 largely due to fall in share of merchandise exports to GDP from 17% to 11%.
- Services exports to GDP remained steady around 8% during this period.
- India slips three spots to 21st rank in world merchandise exports in 2020 from the previous year
- However, India gained in world export share in chemicals, agro & food products and iron & steel since 2010
- India's share in world export has declined in apparel & clothing, although we gained share in low end items such as fibre, yarns and fabrics.

India's Export Competitiveness

- While India has 18% of world productive age population, its share in world merchandise exports is hardly 1.6%
- This study identifies 100 champion products at HS Code 6-digit level where India has at least 24% or one quarter share in world exports.
- These 100 champion goods are spread across nine broad sectors, viz. agro-commodities, textile, inorganic chemicals, organic chemicals, dyes & pigments, machineries, ships, boats and floating structures
- Since 2010, India's share in global organic chemical exports has grown from 2.3% to 4.5%.
- India's trade surplus in dyes, pigments & colours, printing ink, paints and varnishes grew three times to USD 1.39 billion since 2011-12, which indicates our growing export competitiveness in this segment.
- Except for UAE and Saudi Arabia, India has less than 5% share in imports of apparel and clothing accessories of top importing markets
- India became a net exporter of iron & steel, articles of iron & steel and aluminum products in recent years as compared to our status as net importer in 2011-12.
- In the capital goods sector, India's export has been growing in double digit in machine tools, food processing machineries, heavy electrical equipments and plastic processing machineries between 2016 and 2021
- Textile machinery is one sector where India is heavily dependent on imports and at the same time, it is an export-oriented sector.
- India is the leading exporter of large sized water tube boilers as it surpassed China in 2017.



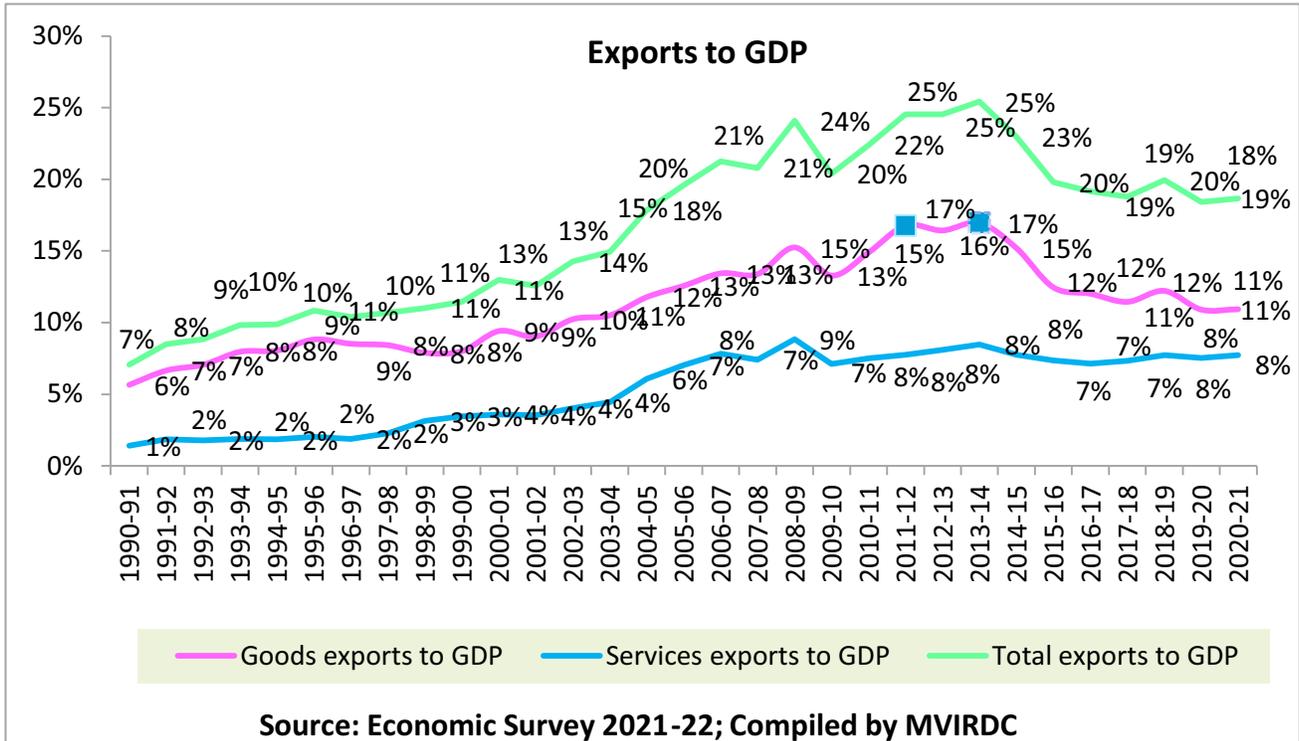
Export and Macro Trends

Export to GDP ratio is a key indicator of the contribution of exports to the economy. It is also an indicator of how integrated a country is to the global value chain. The following table provides this ratio for 18 countries, which are at different stages of development, in ascending order. This data shows that USA, which is the world's largest economy, has the lowest export to GDP ratio, followed by Bangladesh, which is the least developed country in this list. Japan, Brazil, Indonesia, China, India and Russia have moderate exports to GDP ratio in the range of 15%-25%. On the other hand, developing countries such as Thailand, Poland, Malaysia and Vietnam have extremely high export to GDP ratio, indicating strong dependence of their economies on external sector.

Goods & Services Exports to GDP of select countries		
Sr. No	Country	Exports to GDP (%)
1	USA	10.1
2	Bangladesh	12.0
3	Japan	15.5
4	Brazil	16.9
5	Indonesia	17.2
6	China	18.5
7	India	18.7
8	Russia	25.5
9	South Africa	27.8
10	France	27.9
11	UK	28.1
12	Turkey	28.7
13	South Korea	36.4
14	Germany	43.4
15	Thailand	51.5
16	Poland	56.2
17	Malaysia	61.4
18	Vietnam	105.5
Source: World Bank 2020 data		

India's Export intensity

As the following table shows, India's exports to GDP ratio grew gradually from 7% on the eve of economic reforms in 1991 to 25% by 2011-12. Since 2013-14, this ratio started declining from 25% to 18% by 2019-20. The major reason for the decline in this ratio is the sharp fall in merchandise exports to GDP ratio from 17% to 11% during this period, even as services exports to GDP remained steady around 8%.



This surge in export to GDP ratio was largely led by growth in India's goods exports. The share of goods exports to GDP grew from 6% in 1990-91 to 17% in 2013-14. The composition of goods exports also underwent significant transformation during this period. In 1991, our merchandise exports was largely driven by export of agro commodities, textile, handicrafts and gems & jewellery, which together accounted for more than 76% of India's total goods exports. Since then, the share of agriculture in merchandise exports declined from 19% to 14% and the share of handicrafts in goods exports declined from 19% to 3%. Similarly, the share of textile and clothing in merchandise exports declined from 21% in 1990 to around 10% in recent years.

On the other hand, chemicals, engineering and mineral fuel products became the major driver of exports since 1990s. The share of chemicals in merchandise exports grew from 6% in 1990 to 11% by 2011, while the share of engineering goods (automobiles, machinery and iron & steel) grew from 12% in 1990 to 16% by 2000 and it further increased to 25% by 2021. Since the year 2000, the share of gems & jewellery in our merchandise exports also declined from 17% to 9% by 2021-22. India also became a significant exporter of mineral fuels (such as petroleum products and lubricants) since 2000 as the share of this segment in overall exports grew from 4% in 2000 to more than 10% in recent years.

Therefore, the decade since 2000 marked the emergence of high value added exports in chemicals, engineering goods and mineral fuels, while the share of traditional items such as agriculture goods, handicrafts, textile and gems & jewellery witnessed decline in merchandise exports.

These value added products raised the share of merchandise exports in GDP to 17% by 2013-14 from 6% in 1990. However, since 2013-14, this share declined from 17% to 11% because of stagnancy in our merchandise exports. India's merchandise exports remained stagnant around USD 310 billion, largely because of decline in exports of chemical products and mineral fuels as the following table shows.

Export of key product groups in USD million			
Products	FY14	FY20	Growth
Chemicals and allied products	35877	31314	-13%
Engineering goods	61976	76357	23%
Mineral fuels and lubricants	64831	42671	-34%
Total goods exports	314405	313361	0%
Source: Economic Survey of India 2021-22 and 2014-15			

World Export Ranking

According to the World Trade Statistical Review 2021, released by World Trade Organisation on July 30, 2021, India slipped three spot to 21st rank in terms of value of merchandise exports in 2020 from 18th rank in the previous year. India's share in world merchandise exports declined marginally from 1.7% in 2019 to 1.6% in 2020, the report shows. India's merchandise exports fell 15% to USD 276 billion in the calendar year 2020 from the previous year as the pandemic affected the country's exports of engineering goods, petroleum products, gems & jewellery, textile, leather etc. In a sign of resilience, our merchandise export has grown more than 35% in the calendar year 2021 to USD 396 billion, largely led by export of engineering goods, agro commodities and petroleum products.

Vietnam, Switzerland and UAE improved their share in world merchandise exports from 1.4% to 1.6%, 1.7% to 1.8% and 1.5% to 1.7% respectively between 2019 and 2020. The rank of Vietnam improved from 23rd to 20th as its exports grew 7% even during the pandemic hit year of 2020. The export of Switzerland grew 2% and its export ranking marginally improved from 18th to 17th. Exports of UAE grew 9% while its ranking improved from 20th to 19th position.

China, USA, Germany, Netherlands and Japan retained their top five ranking in 2020, while Hong Kong (which is the special administrative region) of China surpassed France to become the sixth largest merchandise exporter.

India's share in world exports of chemicals, agriculture goods, food products and iron & steel grew since 2010, as the following table illustrates. On the other hand, India's share in world export of textile and clothing declined because of intense competition from Vietnam, Bangladesh, Turkey and Indonesia.

Sectors where India's share in world exports improved in last decade			
Sector	Rank in world exports	Share (%) in world exports 2010	Share (%) in world exports 2020
Chemicals	8	1.4	2.4
Agriculture goods	9	1.7	2.2
Food products	9	1.6	2.2
Iron & steel	6	2.5	3.5
Other commercial services	5	4.5	5.1
Sectors where India's share in world exports declined in last decade			
Textiles	3	5.1	4.2
Clothing	6	3.2	2.9
Source: World Trade Statistical Review 2021; Rank is calculated by considering European Union as one exporter, instead of considering individual EU countries separately			

Export Earnings Per Capita

Export is a major driver of per capita income of a country as it generates foreign exchange and employment opportunities. Countries with high per capita income such as Switzerland, Ireland, Denmark and Luxembourg also have a vibrant export sector. Our analysis shows that these countries also rank high in terms of export earnings per person in the productive age of 15-69.

In this section, we conduct a cross-country comparison of export earnings per person in the productive age of 15-69. This analysis shows that there is huge scope for India to increase its exports given its vast pool of productive age population. India has the second largest size of population in the productive age group (aged 15-69 years) after China. The size of our population in this age group is 966 million compared to 1086 million of China and 235 million of USA, which is ranked third in the world on this parameter. Yet the share of India in world merchandise exports is hardly 1.6%, which is below the corresponding figure of other developing countries such as Mexico and Vietnam. Even countries such as Malaysia, Thailand and Poland, despite having hardly 2%, 5.4% and 3% of India's productive age population respectively, have similar share in world merchandise exports as India. For instance, the share of Malaysia and Thailand in world merchandise exports is 1.3%, while that of Poland is 1.5%, compared to India's share of 1.6%. This suggests that there is room for India to utilize its productive age population to boost exports.

One way to measure the export orientation of an economy is to compute the export earnings of a country per productive age population. This is computed by dividing the annual merchandise exports of the country by the population in the productive age of 15-69 years. Countries such as Hong Kong, Singapore, Netherland, Ireland, Belgium, Switzerland-Liechtenstein Customs Union, UAE, Slovenia and Luxembourg have the highest merchandise export earnings per productive age population. There are some common factors that boosted export earnings of these countries. One thing that is common to most of these countries is that they have a strong logistics sector and many of them are international transshipment hubs. Countries such as Ireland, Denmark, Switzerland, Belgium and Slovenia have strong pharmaceuticals and medical devices sectors that powered their overall exports. In fact, Switzerland, Ireland and Belgium are among the top four pharmaceutical exporting nations in the world. Export of Netherland, Switzerland-Liechtenstein, Denmark and Luxembourg are also driven by heavy machineries, plastics and iron & steel products.

Top 10 countries in terms of export earnings per person of productive age (15-69)	
Countries	merchandise export earnings (USD thousands)
Hong Kong	97257
Singapore	77049
Netherlands	56164
Ireland	52561
Belgium	52369
Switzerland, Liechtenstein	51932
UAE	38205
Slovenia	30422
Luxembourg	29629
Source: UNCTAD; Compiled by MVIRDC WTC Mumbai	

India's merchandise export earnings per person of productive age population has grown more than four times in the last 20 years ending 2020. At the same time, India's position on this measure is still the lowest even when compared to developing countries (as the following table shows). Merchandise export earnings per productive age population of Malaysia is 35 times higher than that of India, while the comparable figure of Thailand and Vietnam are 16 times and 14 times respectively. Even Sri Lanka and Bangladesh earn higher export earnings per productive age population.

Merchandise export earnings (USD thousands) per productive age population					
Countries	2001	2005	2011	2015	2020
Malaysia	5735	8241	11443	9246	10014
Poland	1279	3134	6581	6993	9877
Mexico	2513	3137	4522	4595	4672
Thailand	1411	2296	4397	4153	4412
Viet Nam	286	567	1515	2417	4032
Turkey	738	1611	2679	2775	2860
China	286	763	1809	2118	2384
Philippines	674	785	792	886	872
Indonesia	NA	571	1214	840	848
Sri Lanka	366	463	715	722	677
Myanmar	77	117	269	314	431
Egypt	113	271	561	362	414
Bangladesh	76	106	250	307	293
India	64	135	365	300	286
Nepal	53	58	56	42	43

Source: UNCTAD; Compiled by MVIRDC WTC Mumbai

Similarly, India ranks low even in services export earnings per productive age population compared to other developing countries. India's services export earnings per productive age population has grown three times since 2005, as the following table shows. At the same time, developing countries such as Poland, Malaysia, Thailand, Philippines, Vietnam and China are ahead of India on this count.

Services exports (USD thousands) to working age population				
YEAR	2005	2011	2015	2020
Poland	632	1391	1549	2442
Malaysia	1149	1949	1616	935
Thailand	412	821	1126	604
Turkey	610	819	1020	588
Philippines	164	310	438	430
Viet Nam	75	136	168	267
China	79	192	204	258
India	71	167	175	210
Sri Lanka	112	216	438	205
Mexico	230	205	277	190
Brazil	119	263	228	183
Myanmar	9	22	103	114
Indonesia	85	131	124	77
Bangladesh	17	25	31	55

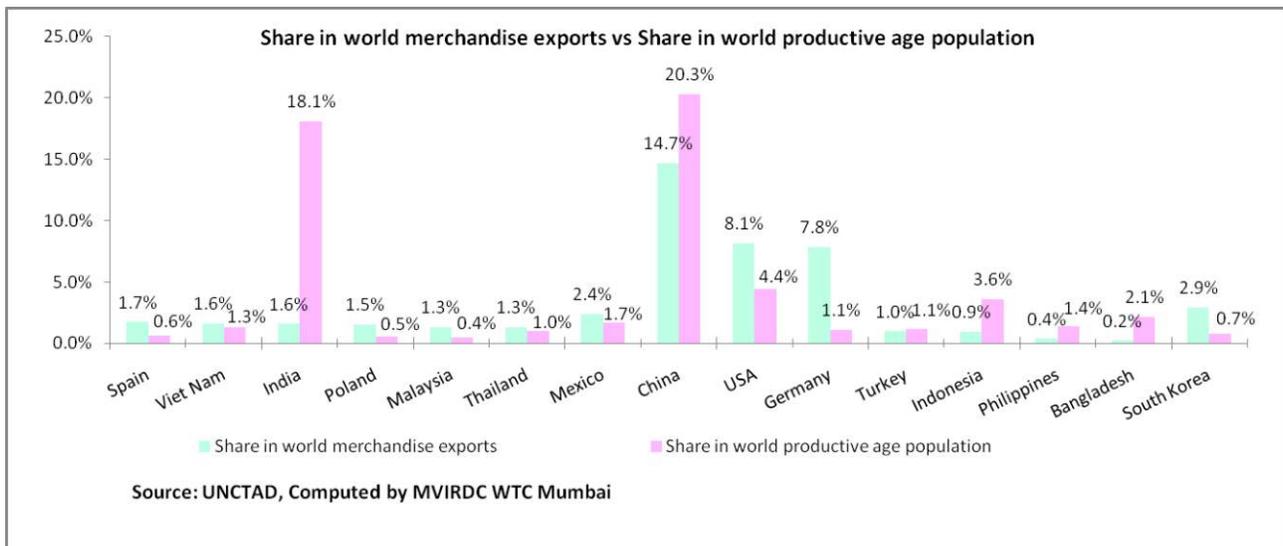
Source: UNCTAD; Compiled by MVIRDC WTC Mumbai

India's Export Competitiveness

Major driver of services exports in Poland is transport and other business services, while in Malaysia, Thailand and Vietnam tourism accounts for 57%, 74% and 70% of services exports respectively. In case of China, contributors to services export is evenly spread across transport (20%), travel (19%) and IT & telecom services (14%). In case of India, around 44% of the service export revenue comes from IT & telecom services, while other business services & tourism contribute 20% and 14% to the export earnings. India can improve its services export earnings by providing thrust to tourism, research and development services, healthcare and education, besides our strong IT and ITES services (see the section on Services Exports in page 40).



Another way of measuring the export orientation of an economy is to compare its share in world exports with its corresponding share in world productive population. As the following chart shows, the share of Vietnam, Poland, Thailand, Mexico and South Korea in world exports is higher than their share in world productive population. Among developed economies, Germany, USA and Spain have higher share in world exports than their corresponding share in world productive population. On the other hand, in countries such as India, China, Indonesia, Bangladesh, and Philippines, their share in world exports is less than their share in world productive population. However, in case of India this share is too less and far striking.



Sectoral Comparisons

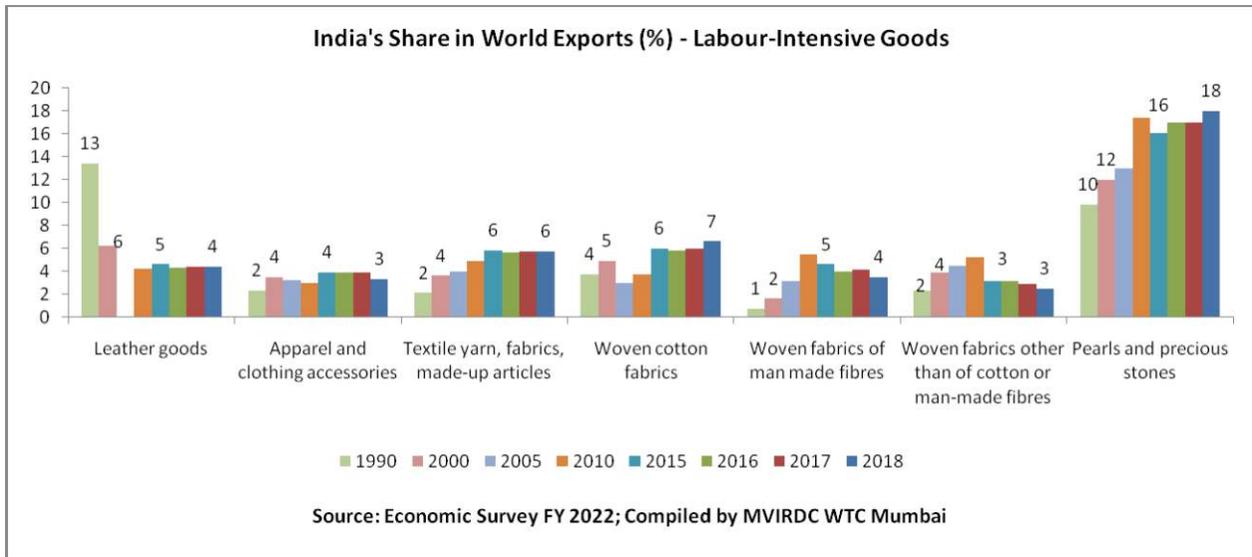
In this section, we analyse the export performance of key commodities, based on standard international trade classification (SITC), in the last 25 years. The period of analysis for this study is 25 years or 1996-2020 and the source of data is UNCTAD. Our analysis based on historical data shows that India has made remarkable growth in world export share in categories such as food commodities, chemicals, engineering goods, textile & floor coverings, gems & jewellery, precious stones, glassware etc.

List of commodities where India's share in world exports has grown								
Sr. No	YEAR	1996	2000	2006	2011	2015	2019	2020
Food Products								
1	Rice	12%	10%	14%	17%	27%	28%	30%
2	Spices	13%	10%	11%	18%	17%	18%	21%
3	Crustaceans, mollusks and aquatic invertebrates	5%	6%	5%	7%	10%	16%	14%
4	Sugar, molasses and honey	2%	1%	3%	5%	4%	7%	9%
5	Tobacco, unmanufactured; tobacco refuse	3%	2%	3%	5%	6%	6%	6%
Chemicals								
1	Synth. organic colouring matter & colouring lakes	4%	5%	7%	11%	16%	20%	18%
2	Other organic chemicals	2%	3%	7%	8%	6%	8%	8%
3	Insecticides & similar products, for retail sale	2%	2%	4%	5%	6%	10%	8%
4	Essential oils, perfume & flavour materials	1%	1%	2%	3%	3%	5%	4%
5	Carboxylic acids, anhydrides, halides, per.; derivati.	1%	1%	1%	2%	3%	4%	4%
6	Dyeing & tanning extracts, synth. tanning materials	1%	1%	2%	3%	3%	4%	3%
7	Organo-inorganic, heterocycl. compounds, nucl. acids	0%	0%	0%	1%	3%	3%	3%
Engineering Goods								
1	Vapour generating boilers, auxiliary plant; parts	0%	0%	2%	2%	4%	11%	6%
2	Flat-rolled prod., iron, non-alloy steel, not coated	0%	1%	2%	2%	2%	5%	6%
3	Steam turbines & other vapour turbin., parts, n.e.s.	0%	0%	1%	1%	2%	6%	5%
4	Ships, boats & floating structures	0%	0%	1%	4%	3%	5%	4%
5	Aluminium	0%	0%	1%	1%	2%	4%	4%
6	Motorcycles & cycles	1%	1%	2%	4%	5%	5%	4%
7	Tractors (excluding those of 71414 & 74415)	0%	0%	1%	3%	5%	4%	4%
8	Tubes, pipes & hollow profiles, fittings, iron, steel	0%	1%	2%	3%	3%	3%	3%
9	Wire products (excluding electrical) and fencing grills	1%	1%	1%	2%	2%	3%	3%
10	Ball or roller bearings	0%	0%	1%	1%	1%	2%	2%
11	Textile & leather machinery, & parts thereof, n.e.s.	0%	0%	0%	1%	2%	2%	2%
Textile and floor covering								
1	Vegetable textile fibres, not spun; waste of them	0%	0%	2%	11%	14%	16%	20%
2	Floor coverings, etc.	6%	7%	9%	8%	11%	10%	11%
3	Jute, other textile based fibre, n.e.s., not spun; tow	1%	1%	1%	5%	5%	5%	8%
4	Silk	1%	2%	2%	2%	3%	3%	6%
5	Synthetic fibres suitable for spinning	0%	1%	2%	4%	3%	5%	4%
6	Fabrics, woven, of man-made fabrics	1%	1%	3%	5%	5%	4%	3%
7	Other man-made fibres suitable for spinning	0%	0%	1%	4%	7%	5%	3%
8	Articles of apparel, of textile fabrics, n.e.s.	1%	1%	2%	3%	4%	4%	3%
9	Tulles, trimmings, lace, ribbons & other small wares	1%	1%	2%	2%	3%	4%	3%
Miscellaneous products								
1	Pearls, precious & semi-precious stones	10%	13%	12%	19%	15%	17%	17%
2	Stone, sand and gravel	5%	7%	7%	8%	8%	8%	9%
3	Jewellery & articles of precious materia., n.e.s.	3%	4%	10%	15%	8%	10%	8%
4	Glassware	0%	0%	1%	1%	2%	2%	2%

Source: UNCTAD; Compiled by MVRDC WTC Mumbai

The following chart provides India's share in world export of key labour intensive goods such as gems & jewellery, textile & clothing and leather goods. Among these categories, India's share has grown remarkably in pearls & precious stones from 10% to 18% between 1990 and 2018. In the textile and clothing value chain, India has increased its world export share in the low value added items such as yarn, fabrics & made-ups articles (from 2% to 6%). India's share in woven man-

made fabrics has grown from 1% to 4%. On the other hand, our share in world export of high value added items such as apparel & clothing has remained stagnant around 2-3% between 1990 and 2018. In leather goods, India's share declined from 13% to 4% during the reference period.

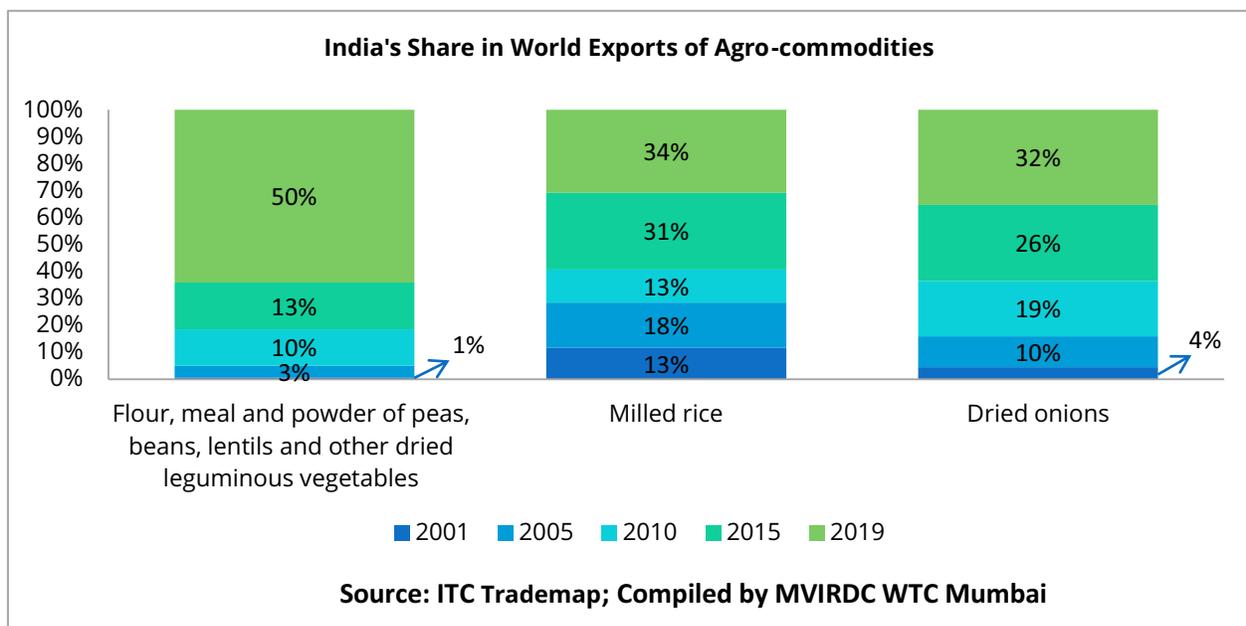


HS Code 6 level Analysis - nine major sectors

This study has identified 100 champion products at HS Code 6-digit level where India has at least 24% or one quarter share in world exports. These 100 champion goods are spread across nine broad sectors, viz. agro-commodities, textile, inorganic chemicals, organic chemicals, dyes & pigments, essential oils, iron & steel, machineries, and ships, boats & floating structure. The list of these 100 champion goods is presented sector-wise in Annexure II of this study and the following section provides stylized facts about these nine broad sectors.

1) Agro and food commodities:

India is the second largest producer of foodgrains, fruits & vegetables after China and it holds 8th rank in world export of agro commodities. Prominently, India has a 30% share in world export of rice and 21% in spices exports as of 2020. The respective shares have grown from 12% and 13% 25 years ago. Our success in this regard is led by promotion of our basmati variety of rice across world markets. The share of India in world export of milled rice grew from 13% to 34% between 2001 and 2019. In the value added segment of horticulture crops, India has 1/3rd of world export share in dried onions as of 2019, up from 1/10th in 2001. In another segment where India ramped up world export share is the milled products, especially flour and powder of dried leguminous vegetables where India accounts for 50% of world exports as of 2019, up from 3% in 2001 (see the chart below).



Among spices, India has 80% share in world export of cumin seeds, 64% in turmeric, 59% in chillies and 48% in coriander seeds (see table below). India is the largest exporter of spices in the world, followed by China (with a share of 15%), Guatemala (8%), Vietnam (8%), Indonesia (6%) and Madagascar (4%).



Share (%) of India in world export of spices				
HS Code	Product label	2017	2018	2019
90931	Cumin seeds, neither crushed nor ground	72%	81%	80%
91030	Turmeric "curcuma"	66%	68%	64%
90421	Fruits of the genus Capsicum or of the genus Pimenta, dried, neither crushed nor ground	64%	56%	59%
90922	Coriander seeds, crushed or ground	49%	44%	48%
90932	Cumin seeds, crushed or ground	39%	36%	37%
90921	Coriander seeds, neither crushed nor ground	22%	25%	27%

Source: ITC, Geneva; Compiled by MVIRDC World Trade Center Mumbai

Despite being the largest exporter of spices in the world, Indian spice varieties face several challenges in the world market and the most prominent among them is the strict quality and certification standards in the importing countries. In our interaction with senior officials of Spices Board, we learnt that Indian spice exporters face several challenges, such as competition from low cost producers, stringent Sanitary & phyto Sanitary Measures and quality certification standards. Following is an excerpt of our survey with Spice Board to identify the challenges faced by Indian exporters.

Survey with Spices Board

By Dr. Dinesh Singh Bisht, Scientist 'C', Quality Evaluation Laboratory - Spices Board (Ministry of Commerce and Industry, Government of India)

Key Challenges faced by the Indian Spice Growers and Manufacturers in the Global market

1. Presence of Low cost Competitors in International Market: Emergence of new producers and suppliers in the global market with cheaper products has led to a fall in India's market share in the global exports viz.

-Black Pepper (Vietnam) -Cardamom (Guatemala) -Coriander (Russia, Syria) - Saffron (Iran, Spain) - Ginger & Garlic (China). The low cost of production and labour in these countries is affecting India's price competitiveness

2. Introduction of new Non-Tariff Barriers like SPS and TBTs by the importers:

Major spice importing countries are coming up with stringent norms for quality and safety in spices. Non-tariff barriers or Sanitary & phyto Sanitary Measures are a major obstacle in India's spice trade especially in accessing the markets of developed nations. Some of the SPS and TBT issues affecting exports are SPS requirements for Indian Chilli by Mexico. Stringent norms imposed by EU on pesticide MRLs etc

3. Encouraging Value Addition in Spices and export of Value added products.

4. Competitors' Trade arrangements in the major global markets: Tariff rate has escalated the price of some Indian spices thereby making it disadvantageous for India compared to its competitors. Government of India has put added thrust on entering into FTAs/CEPA with many countries, which would help reduce tariff barriers for Indian spices.

5. Producing an exportable surplus of spices in compliance with the quality standards: Many of the importing countries have set up limits for maximum levels for aflatoxins, ochratoxins, pesticide residues, standards for food hygiene etc. in spices and spice products, compliance of which can be achieved through focused steps across various stages of the supply chain, such as production, processing, post harvest management, warehousing, value addition, packaging etc. It is observed that non-compliance with the applicable quality and food safety norms are the major obstacles in further boosting India's spice exports. To overcome this, an integrated approach may be taken for export promotion, covering the entire supply chain of spices.

India ramped up share in export of marine products such as crustaceans and molluscs from 5% to 14% in the last 25 years. Particularly, India's share in export of molluscs variety of marine products has grown in recent years upto 35%, depending on its variety (see the table below). Similarly, India has a share of 26% in world export of frozen shrimps.

Share (in%) of India in world export of marine products				
HS Code	Product label	2017	2018	2019
30273	Fish, fresh or chilled	2%	4%	14%
30333	Frozen fish	16%	14%	11%
30445	Fresh or chilled fillets of swordfish "Xiphias gladius"	6%	9%	10%
30617	Frozen shrimps and prawns, even smoked, whether in shell or not, incl. shrimps and prawns in ...	25%	25%	26%
30739	A variety of Molluscs	16%	22%	35%
30788	A variety of Molluscs	0%	0%	39%

Source: ITC, Geneva; Compiled by MVIRDC World Trade Center Mumbai

India is the fourth largest exporter of fish, crustaceans, molluscs and preparations after China, Norway and Vietnam. India also faces competition from Chile, Netherland, Thailand, Canada, Indonesia and Ecuador, who figure in the top 10 exporters of marine products. India has a share of 4% in world export of overall marine products, although it has 14% share in export of crustaceans, molluscs and aquatic vertebrates. China, Norway and Vietnam have a cumulative share of 26% in world export of marine products.

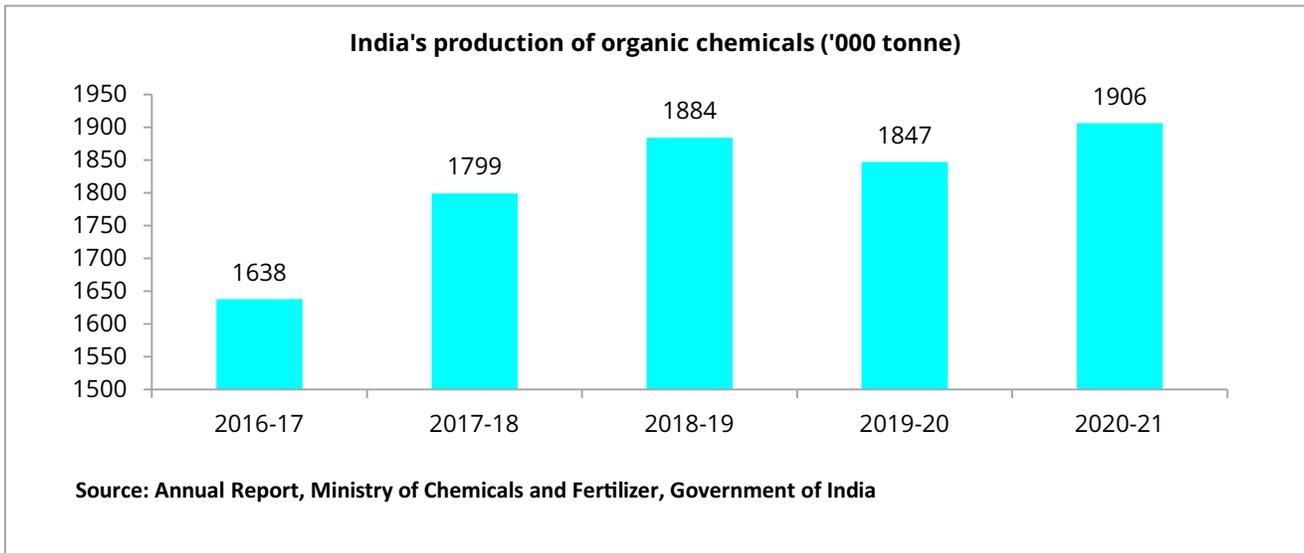
2) Organic Chemicals

Chemical and petrochemical industry contributes more than 13% to the gross value added of the manufacturing sector in India. It is a vast sector, which includes alkali chemicals, polymers, organic chemicals, inorganic chemicals, tanning & dyeing products, synthetic rubber, synthetic plastics, man-made filaments and man-made staple fibre. Of these, polymers and alkali chemicals account for more than 65% of total domestic production.

Organic chemical contributes to 7% of the total chemical & petrochemical production in India. As the following chart illustrates, production of organic chemicals grew from 1.6 million tonne in 2016-17 to 1.9 million tonne in 2020-21. India produces more than 20 types of organic chemicals, chief among which are chloro methanes, methanol, formaldehyde, acetic acid, ethyl acetate etc.

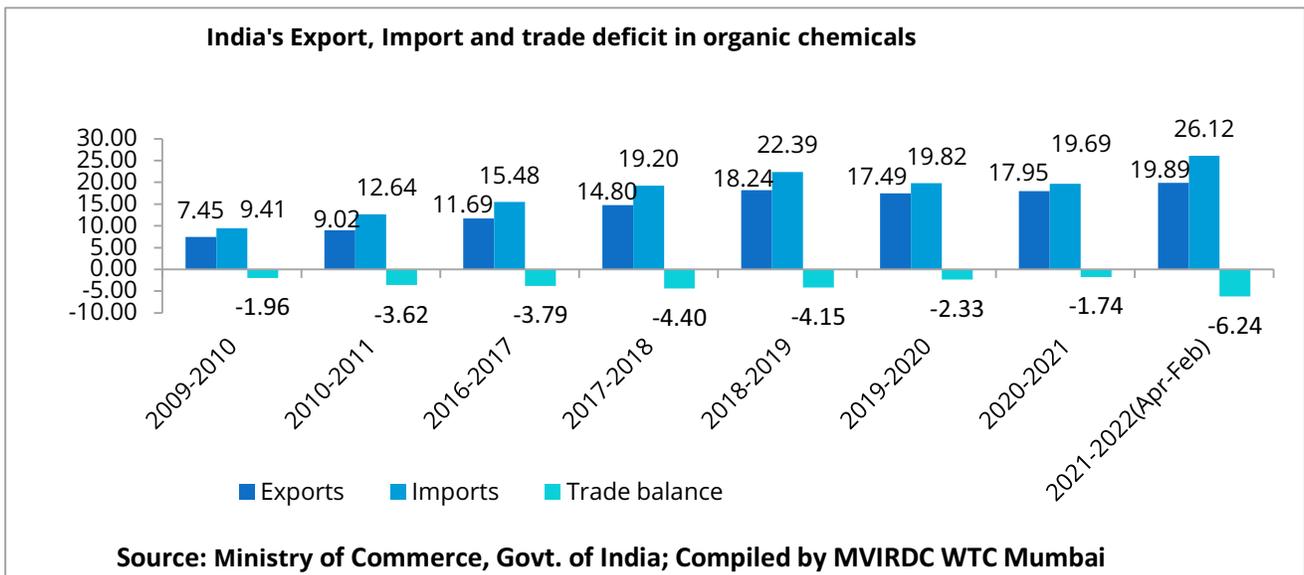
Organic chemical is an export oriented sector in India as its share in overall chemical and petrochemical export is 48% as

of 2020-21, which has grown from 41% in 2016-17. This is despite organic chemical contributing merely 7% to overall chemical production of the country. Organic chemical is the fifth largest category in our export basket after petroleum products, precious metals, machineries and iron & steel. Organic chemical contributes 5-6% to our annual merchandise exports, up from 4% 10 years ago. India is the seventh largest exporter of organic chemicals in the world after China, Ireland, USA, Belgium, Switzerland and Germany. Since 2010, India's share in global organic exports has grown from 2.3% to 4.5%.

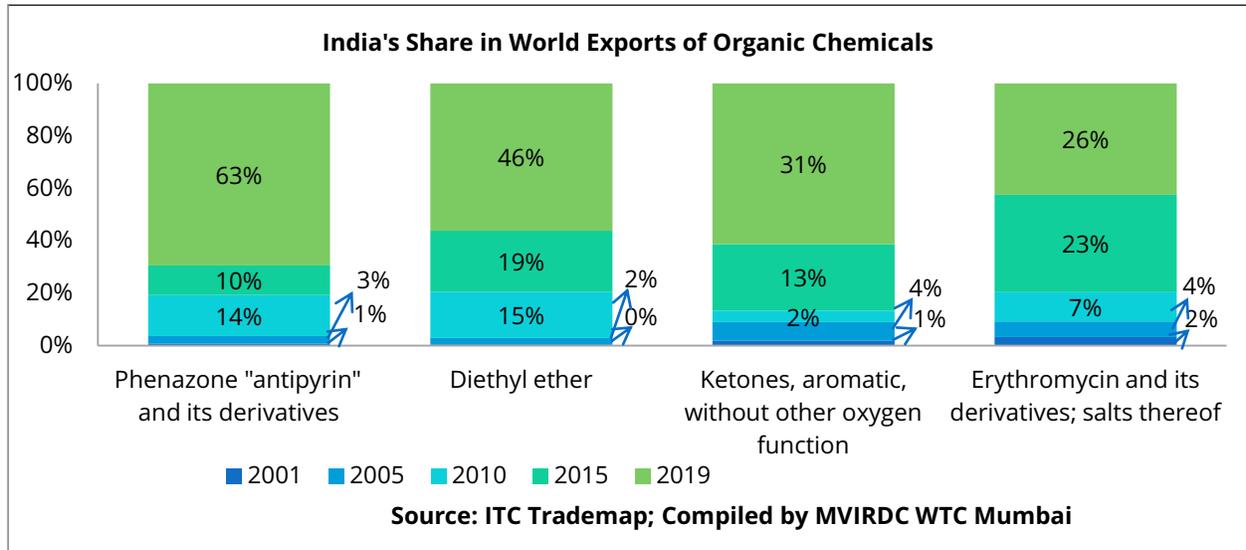


Rising trade deficit despite growing exports

India's trade deficit in the organic chemicals segment has been growing steadily from USD 1.9 billion to USD 6.2 billion between 2009 and 2022, as the following chart shows because of faster growth in imports compared to exports. Imports have grown 2.8 times versus 2.7 times growth in exports between 2009 and 2022.

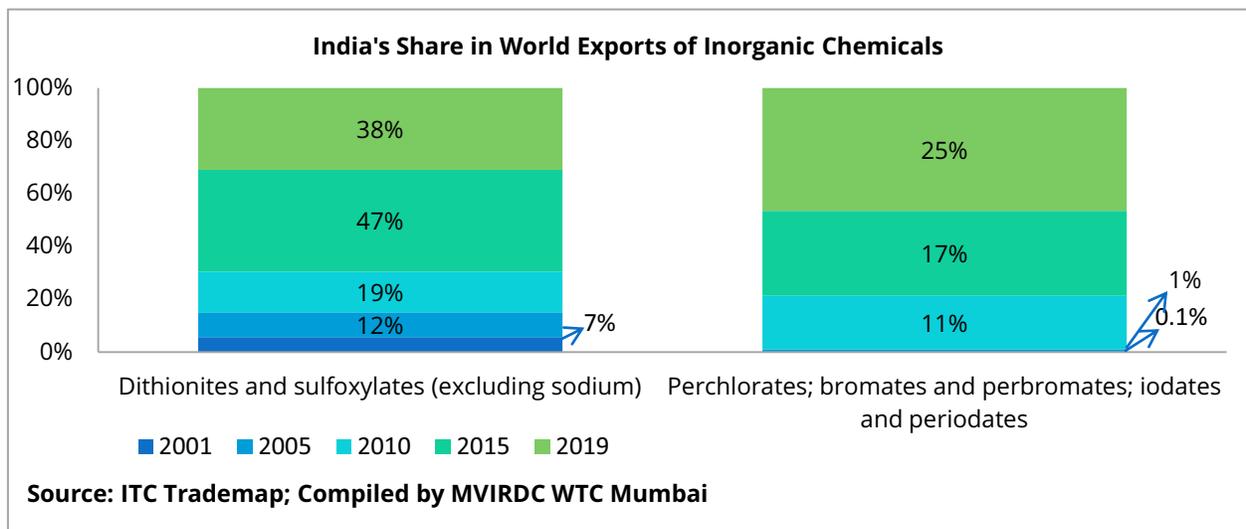


There are 19 organic chemical products at 6-digit HS Code, where India's share in world exports is higher than 25% as of 2019. The list of these products is presented in Annexure II. Out of these 19 products, Diethyl ether, Phenazone, Ketones and Erythromycin have witnessed strong growth in world export share since 2001 as the following chart shows.



3) Inorganic Chemicals

Inorganic chemical is a small segment within the chemical industry as it contributes hardly 3-4% of India's chemical and petrochemical production and it accounts for 5-6% of overall chemical exports. In the overall merchandise exports, inorganic chemicals have a miniscule share of 0.6%, which has largely remained steady since 2010-11. India holds 19th rank, with a share of 1.4% in world export of inorganic chemicals. But this is a potential growth sector as export has grown at an annual average rate of 7% between 2016 and 2020. India has more than 25% share in world exports in two of the inorganic chemicals, which are: Dithionites and Perchlorates as shown in the following chart.



4) Dyes and Pigments

India's specialty chemicals such as dyes, pigments and paint varnishes hold tremendous growth potential. These chemicals are largely used in textile, leather, ink, paper and paint industries. This sector is largely dominated by small scale industries, mostly in Gujarat and Maharashtra.

India has made considerable progress in the exports of dyes, pigments & colours, printing ink, paints and varnishes (chapter 32 of HS Code) in recent years and there is still untapped export potential in this segment. India's rank in world exports of these materials improved from 11 in 2015 to seven in 2019 as the country overtook UK, Italy and France in export of these goods. India's share in world exports of these chemicals grew from 3.4% to 4.2% during this period and this represents the huge untapped growth potential for exports in these products. India has to compete with the leading exporters such as Germany, China, USA, Japan, Netherlands and Belgium that occupy the top six ranking in this order in world exports of these materials and contribute half of the world exports.

Potential growth areas:

India has made considerable growth in export of synthetic organic colouring matter and inorganic mineral colouring matter in recent years. For instance, India's exports of green, red, violet and other pigments grew at a CAGR of 4.5% from USD 221 million in 2011-12 to USD 315 million by 2019-20. Compared to this, India's overall merchandise exports grew hardly 0.3% during this period. Exports of chrome pigments grew more than three times to USD 38 million in 2019-20 since 2011-12. Similarly, exports of paints & varnishes based on synthetic or chemically manufactured natural polymers have grown five times to USD 20 million since 2011-12. India's exports of certain varieties of printing ink grew around three times to USD 122 million in the last eight years, even though export of newspaper inks and black printing ink declined.

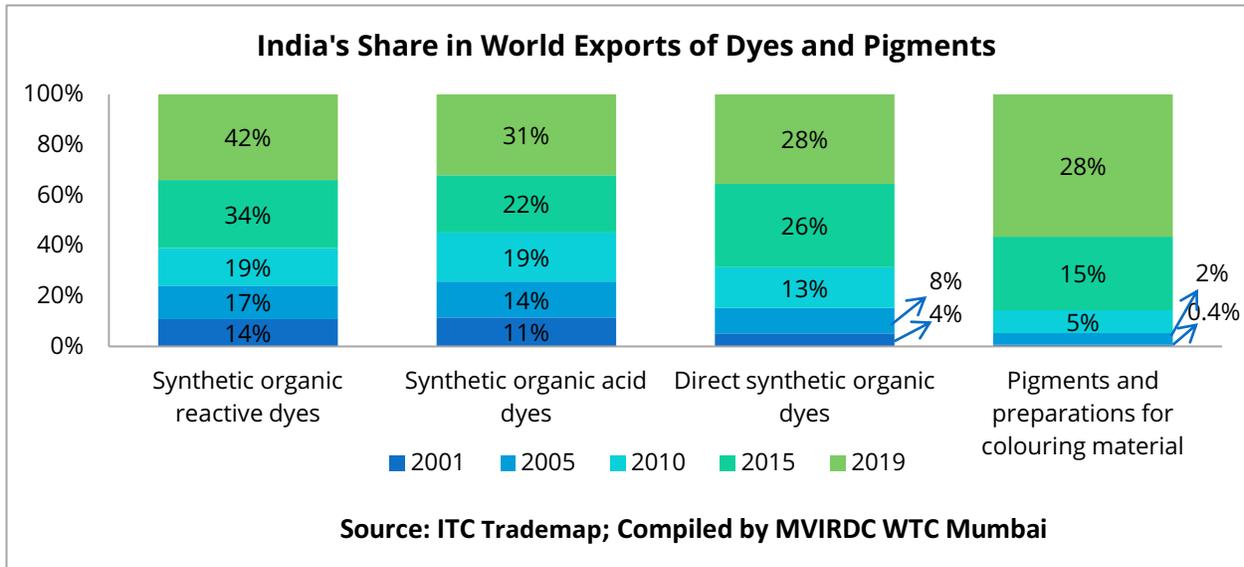
Export of paints and varnishes grew around 2.5 times since 2011-12 to USD 96 million in 2019-20. Paints and varnishes include lacquers, emulsion and other paints & varnishes based on acrylic, vinyl polymers and other synthetic polymers.

On the whole, India's exports under the broad category of dyes, pigments & colours, printing ink, paints and varnishes (chapter 32 of HS code) grew at a CAGR of 7.4% since 2011-12 to USD 3.4 billion and our trade surplus in this segment grew three times to USD 1.39 billion, which indicates our growing export competitiveness in this segment. As a result of strong export growth, India's trade surplus in this segment more than doubled from USD 500 million in 2010-11 to USD 1.4 billion by 2019-20.

Currently, major importers of these chemicals are Germany, China, USA, France, Italy, Netherlands, Belgium and South Korea. India largely exports these chemicals to China, USA, Turkey, Bangladesh and Germany, that together account for 40% of our overall exports. World export in this sector stands at USD 80 billion, while India's share is hardly 4.2% or USD 3.5 billion, which represents huge untapped potential. India can also explore export opportunities in Belgium, Netherlands, Italy, South Korea, Mexico and UK, which are other major importers of these commodities.

There are four prominent products within this segment, where India's share in world exports is more than 25%. These are: synthetic organic reactive dyes, synthetic organic acid dyes, direct synthetic organic dyes and preparations for colouring material, as the following chart shows.



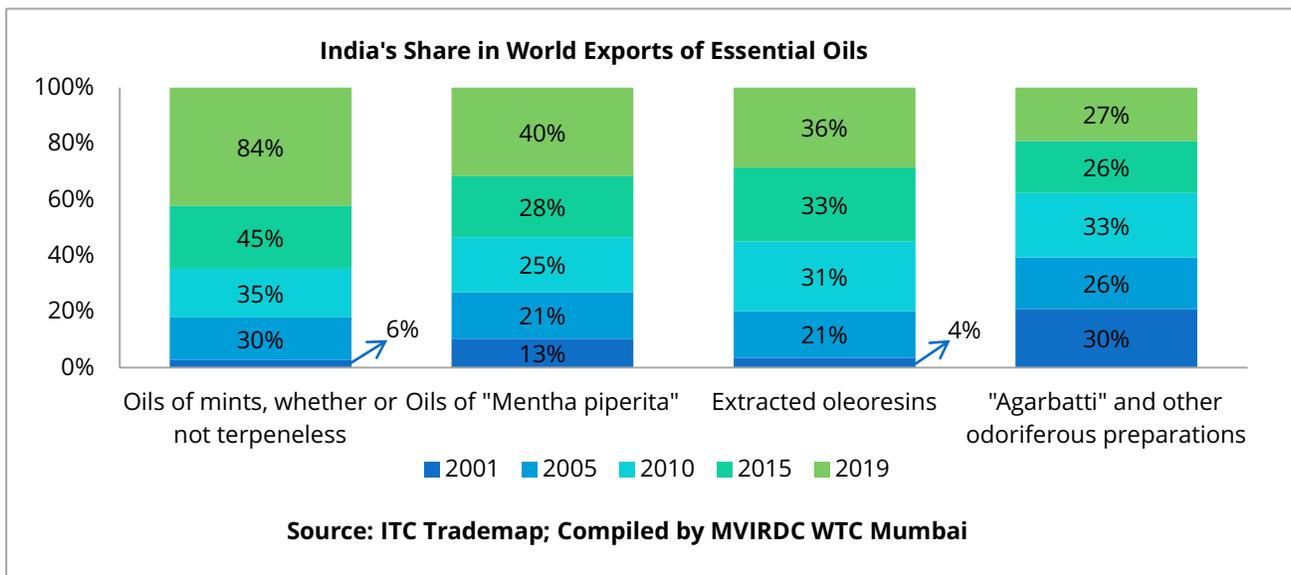


5) Essential Oils

Essential oils is a broad category under which India exports around 124 products, mostly comprising incense stick, tooth paste, hair dyes, perfumes and natural extracts of plants such as turmeric, capsicum, lemon grass, spices etc. These oils are used as food ingredients, inputs in drugs & pharmaceuticals, cosmetics etc.

Globally, there is huge demand for natural extracts from citrus plants, eucalyptus, lavender, rosemary, tea tree and other plant varieties. India is the 22nd largest exporter of essential oils in the world, with a share of 1.3% in global exports. Our exports have grown at an annual average rate of 6% between 2016 and 2020, on par with the world export growth of 6% during this period. The top exporters in this segment are France, USA, Germany, Singapore, Ireland and South Korea. India is a net exporter of essential oils, with trade surplus rising from USD 560 million to USD 976 million between 2011-12 and 2019-20.

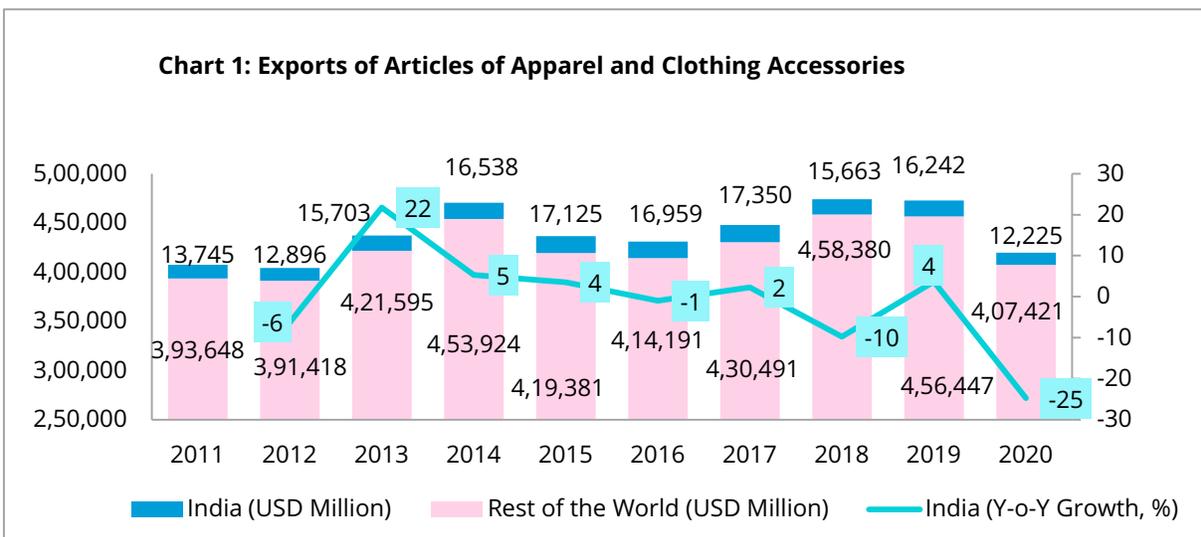
The following chart shows four essential oil products, where India's share in world exports is more than 25%. These are mint oil, menthe oil, extracted oleoresins and odoriferous substances such as incense sticks.



6) Textile Products

The textile and apparel industry is one of the oldest industries in India, and one of the largest employment-providers even in recent times. Proximity to raw material production such as cotton, silk, jute etc. has helped growth of this industry. While India has a strong-hold in the entire value chain, from fiber and yarn to fabric and apparel, the sector also contributes more than 10 per cent to India's export earnings.

However, exports of apparel and clothing accessories have witnessed nominal or negative year-on-year growth in recent times. India exported about USD 12 billion worth of apparel and clothing accessories in 2020. Notwithstanding the Covid-19 pandemic, India's exports of apparel and clothing accessories have grown from about USD 14 billion in 2011 to only about USD 16 billion in 2019. Further, India's share in world exports of apparel and clothing accessories has hovered around 3%-4% in this period. The following chart illustrates export of apparel and clothing accessories of the world and India.



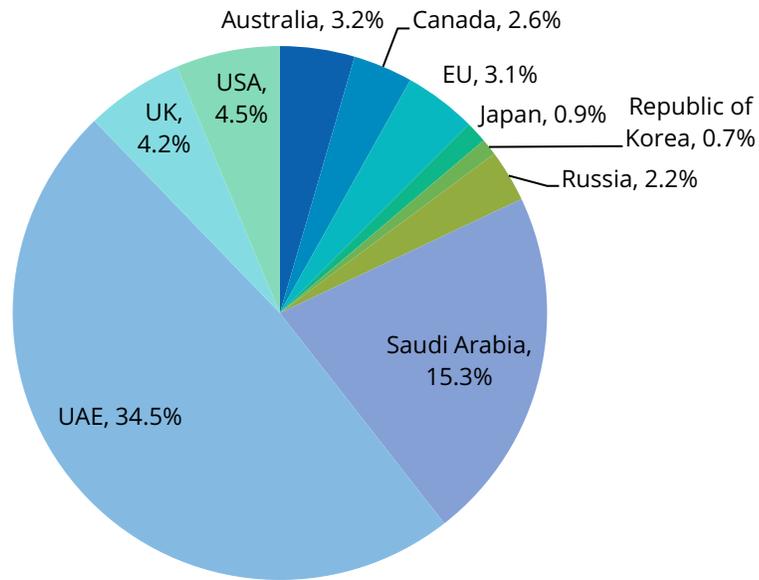
Source: trademap.org, MVIDC WTC Mumbai In - house Analysis

Low Penetration in Major Markets

While India has a significant share in imports of apparel and clothing accessories of UAE and Saudi Arabia, India has a share of less than five per cent in imports of these products by USA, UK, EU, Australia, Canada and Russia, and less than 1% in imports of these products by Japan and Republic of Korea. The following chart highlights the share of India in imports of top markets in apparel and clothing.



Chart 2: India's Share in Major Global Markets' Imports from the World (2020): Articles of Apparel and Clothing Accessories



Source: trademap.org, MVIRDC WTC Mumbai In-house Analysis

Challenges in Market Access

India faces significantly high tariffs in imports of apparel and clothing accessories by EU, UK, Canada and Australia compared to other major Asian exporters of these products like Bangladesh, Viet Nam and Cambodia. Bangladesh and Viet Nam are also among the major exporters of these products to the world, and are capturing the space vacated by China, which is transitioning towards high skill jobs. Even in countries such as Japan and South Korea, where India does not have a tariff disadvantage compared to its Asian peers, India's share in imports of apparel and clothing accessories of the two countries is insignificant. This is despite the fact that India has entered into Comprehensive Economic Partnership Agreements (CEPA) with these countries.

Tables 1, 2, 3 and 4 highlight the tariffs applied on imports of apparel and clothing accessories by major global markets, supplied by India and its major Asian competitors.

Tariffs Applied on Imports of Articles of Apparel and Clothing Accessories, Knitted or Crocheted (HS Code 61)											
		Importers									
		USA		EU		UK		UAE		Saudi Arabia	
		Value in 2020 (USD Million)	Effectively applied tariffs (2021)	Value in 2020 (USD Million)	Effectively applied tariffs (2021)	Value in 2020 (USD Million)	Effectively applied tariffs (2021)	Value in 2020 (USD Million)	Effectively applied tariffs (2020)	Value in 2020 (USD Million)	Effectively applied tariffs (2020)
Exporters	India	1,544	14.38%	1,725	9.43%	522	9.41%	890	5.00%	283	5.02%
	China	9,352	14.38%	11,261	11.79%	1,940	11.77%	909	5.00%	686	5.02%
	Bangladesh	1,681	14.38%	11,776	0.00%	1,619	0.00%	Not Available	5.00%	148	5.02%
	Viet Nam	7,417	14.38%	1,170	5.54%	204	5.54%	35	5.00%	35	5.02%
	Cambodia	2,194	14.36%	1,603	4.12%	517	0.00%	28	5.00%	30	5.02%
	Indonesia	1,952	14.36%	401	9.43%	59	9.41%	23	5.00%	16	5.02%

Source: macmap.org, MVIRDC WTC Mumbai In-house Analysis

Tariffs Applied on Imports of Articles of Apparel and Clothing Accessories, Knitted or Crocheted (HS Code 61)											
		Importers									
		Japan		Republic of Korea		Canada		Russia		Australia	
		Value in 2020 (USD Million)	Effectively applied tariffs (2021)	Value in 2020 (USD Million)	Effectively applied tariffs (2020)	Value in 2020 (USD Million)	Effectively applied tariffs (2021)	Value in 2020 (USD Million)	Effectively applied tariffs (2021)	Value in 2020 (USD Million)	Effectively applied tariffs (2021)
Exporters	India	54	0.00%	24	0.00%	117	17.53%	81	6.92%	89	4.80%
	China	7,005	9.51%	1,201	7.50%	1,336	17.53%	912	6.92%	1,923	0.00%
	Bangladesh	513	0.02%	188	0.00%	474	0.00%	443	6.92%	384	0.00%
	Viet Nam	2,009	0.00%	1,137	0.00%	501	0.00%	153	0.37%	136	0.00%
	Cambodia	503	0.00%	115	0.00%	666	0.00%	90	6.92%	60	0.00%
	Indonesia	409	0.00%	216	1.21%	112	17.53%	25	6.92%	74	0.00%

Source: macmap.org, MVIRDC WTC Mumbai In-house Analysis

Tariffs Applied on Imports of Articles of Apparel and Clothing Accessories, not Knitted or Crocheted (HS Code 62)											
		Importers									
		USA		EU		UK		UAE		Saudi Arabia	
		Value in 2020 (USD Million)	Effectively applied tariffs (2021)	Value in 2020 (USD Million)	Effectively applied tariffs (2021)	Value in 2020 (USD Million)	Effectively applied tariffs (2021)	Value in 2020 (USD Million)	Effectively applied tariffs (2020)	Value in 2020 (USD Million)	Effectively applied tariffs (2020)
Exporters	India	1,659	10.86%	1,623	9.22%	447	9.18%	625	5.00%	179	5.00%
	China	10,193	10.86%	13,769	11.52%	4,301	11.48%	730	5.00%	651	5.00%
	Bangladesh	3,603	10.86%	8,377	0.00%	1,167	0.00%	Not Available	5.00%	96	5.00%
	Viet Nam	5,765	10.86%	1,910	7.24%	305	7.24%	19	5.00%	55	5.00%
	Cambodia	863	10.78%	607	2.30%	226	0.00%	7	5.00%	37	5.00%
	Indonesia	1,717	10.78%	572	9.22%	84	9.18%	32	5.00%	22	5.00%

Source: macmap.org, MVIRDC WTC Mumbai In-house Analysis

Tariffs Applied on Imports of Articles of Apparel and Clothing Accessories, not Knitted or Crocheted (HS Code 62)											
		Importers									
		Japan		Republic of Korea		Canada		Russia		Australia	
		Value in 2020 (USD Million)	Effectively applied tariffs (2021)	Value in 2020 (USD Million)	Effectively applied tariffs (2020)	Value in 2020 (USD Million)	Effectively applied tariffs (2021)	Value in 2020 (USD Million)	Effectively applied tariffs (2021)	Value in 2020 (USD Million)	Effectively applied tariffs (2021)
Exporter	India	168	0.00%	42	0.00%	105	16.79%	75	8.32%	118	4.82%
	China	6,335	9.04%	1,669	9.11%	1,907	16.79%	1,846	8.32%	2,279	0.00%
	Bangladesh	520	0.14%	135	0.55%	540	0.00%	368	8.32%	263	0.00%
	Viet Nam	1,942	0.00%	1,929	0.00%	457	0.00%	237	1.01%	165	0.00%
	Cambodia	541	0.00%	55	0.55%	205	0.00%	44	8.32%	36	0.00%
	Indonesia	435	0.00%	298	1.03%	111	16.79%	40	8.32%	130	0.00%

Source: macmap.org, MVIRDC WTC Mumbai In-house Analysis

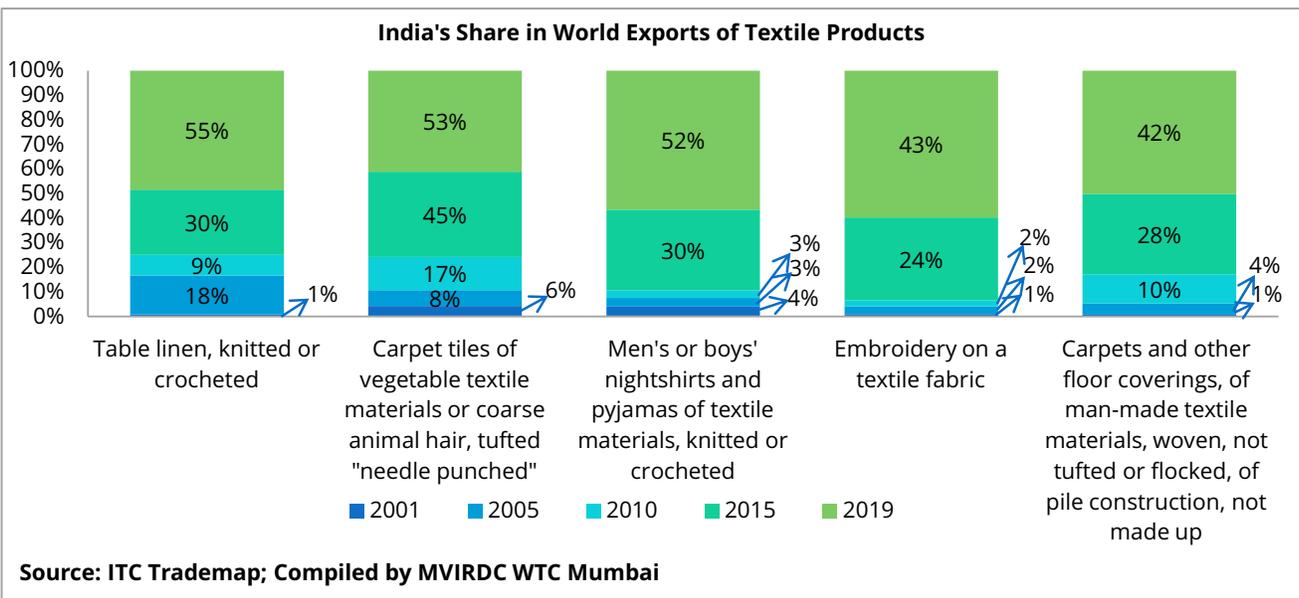
Suggestions for Enhancing Exports

- Viet Nam has been able to successfully penetrate Japanese and South Korean apparel and clothing accessories markets owing to its advanced manufacturing technologies, customization to market demand and low lead time, apart from having trade agreements with these countries. Indian exporters should take cognizance of the same.
- Bangladesh has been able to capture EU and UK markets by reaping economies of scale and adhering to quality

standards, while also having preferential market access to these countries owing to its LDC status. The Indian government's thrust to set up Mega Integrated Textile Region and Apparel parks can attract huge foreign investments as land availability, connectivity and plug-and play infrastructure are pre-requisites under this scheme. However, the government should ensure speedy implementation of these mega textile park projects.

- India is negotiating Free Trade Agreements with UK, EU, Canada and Russia, among other countries. The Indian government should ensure inclusion of apparel and clothing accessories exports in these agreements for gaining greater market access in these countries.
- While India is one of the largest producers of cotton, silk, jute and synthetic fiber, the textile industry's focus should shift from export of basic raw materials, yarns and fabrics to value-added apparel and clothing accessories exports.

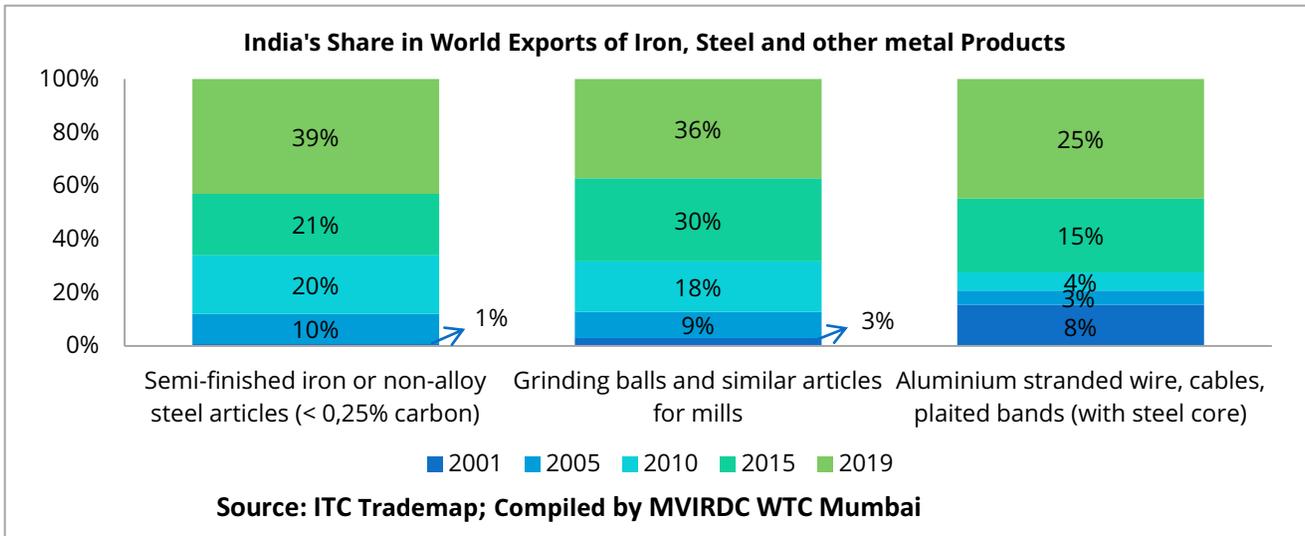
While India has hardly 3-4% share in world export of apparel and clothing accessories, it has more than 25% market share in 52 items of textile and apparel (as mentioned in the Annexure II). The following table highlights five key textile products where India has more than 40% share in world exports. These are: table linen, carpet tiles, men's nightshirts & pyjamas, embroidery on textile fabric and carpet and floor coverings.



7) Iron, Steel and other metal Products

Iron & steel (HS Chapter 72, 73) and aluminum (HS Chapter 76) are export oriented sectors in India as their share in India's merchandise exports grew from 6% in 2011-12 to 10% in 2021-22. India became a net exporter in these sectors in recent years as we had a trade surplus of more than USD 16 billion in 2021-22 in iron & steel and aluminum products, compared to a deficit of USD 4.2 billion in 2011-12. India is emerging as a reliable supplier of iron & steel and aluminum products as production and exports of these products from China are declining in recent months because of strict environment protection norms in that country.

India is the 11th largest exporter of iron & steel, 13th largest exporter of articles of iron & steel and seventh largest exporter of aluminum articles. Countries such as China, Germany, South Korea, Italy, USA, Russia and France are ahead of India in global export of these items. With the ongoing geopolitical political tension, India has the opportunity to capture Russia's export share in these items. As the following chart illustrates, India has more than 25% world export market share in three products, viz. semi-finished iron or non-alloy steel articles, grinding balls and similar articles for mills and aluminum stranded wire, cables.



8) Machineries and Equipments

As Government of India attracts foreign and domestic investment in the manufacturing sector under the grand vision of Aatma Nirbhar Bharat, demand for industrial machinery is expected to grow in the country. India is largely dependent on imports to meet domestic demand for machineries used in textile, plastic, printing, cement and other manufacturing industries. The following table illustrates the extent of import-dependence across key machinery sectors and the share of domestic production that is exported.

As can be seen from the following table, India has high reliance on imports in textile machinery, machine tools, printing machinery and plastic processing machineries. Except in the year 2020-21, India's import dependence in textile machinery has been more than 70%. Compared to these segments, our import dependence in heavy electrical equipments and dies, moulds and press tools is lower around 35%.

Share of domestic demand met through imports						
S. No.	Sub sector	2016-17	2017-18	2018-19	2019-20	2020-21
1	Machine Tools	53%	53%	58%	66%	50%
2	Dies, Moulds and Press Tools	8%	9%	31%	34%	35%
3	Textile Machinery	71%	73%	77%	77%	4%
4	Printing Machinery	38%	41%	44%	44%	43%
5	Earthmoving And Mining Machinery	16%	17%	14%	15%	4%
6	Plastic Processing Machinery	52%	53%	31%	31%	44%
7	Food Processing Machinery	22%	23%	44%	NA	NA
8	Process Plant Equipment	54%	53%	17%	18%	NA
9	Heavy Electrical Equipment Sector	32%	29%	34%	36%	36%
	Total	34%	32%	35%	37%	34%

Source: Annual Report 2021-22; Ministry of Heavy Industries, Government of India; Compiled by MVIRDC
Domestic demand is estimated as total production + imports - exports in a financial year

Decline in Imports

There are certain types of textile machineries whose imports have declined sharply since 2011-12. These are: machines for embroidery, fibre winding or reeling machines, certain types of spinning and weaving machines. Import of these items declined from USD 713 million to USD 301 million between 2011-12 and 2019-20, as the following table shows. Declining imports of these machineries indicates lower demand for these machines by domestic textile manufacturers. The fall in import of these machineries may be the result of slowdown in the textile manufacturing or it may be led by substitution of imported machineries with domestically produced machines.

Machinery items that witnessed sharp decline in imports (fig in USD million)							
HS Code	Product Description	2011-12			2019-20		
		Export	Import	Trade Balance	Export	Import	Trade Balance
84479020	MACHINES FOR MAKING EMBROIDERY	0.62	225.88	-225.26	0.49	129.72	-129.23
84454010	COTTON YARN WNDNG(INCL WEFT-WNDNG) OR REELING MACHINES,AUTOMATIC OR OTHERWISE	0.45	141.96	-141.51	0.29	53.36	-53.07
84454090	OTHR TEXTILE FIBRE WINDING AND REELING MACHINES	5.43	82.97	-77.54	6.77	37.41	-30.64
84452019	COTTON SPINNING MACHINES,N.E.S.	1.1	107.92	-106.82	2.16	33.33	-31.17
84452090	OTHER TEXTILE FIBRES SPINNING MACHINES	1.62	82.9	-81.28	0.65	26.83	-26.18
84463011	COTTON WEAVING MACHINES AUTOMATIC,POWERLOOM	0	71.42	-71.42	0.4	20.48	-20.08
	TOTAL OF THE ABOVE	9.22	713.05	-703.83	10.76	301.13	-290.37

Source: Ministry of Commerce & Industry, Compiled by MVIRDC

Growth in Imports

On the other hand, imports of certain kinds of industrial machineries grew sharply since 2011-12. These categories include: machineries for making rubber products, certain machineries used in weaving, machinery for filling, closing or sealing bottles and containers, machineries for moulding etc. the following table lists eight categories of industrial machineries whose cumulative imports doubled since 2011-12 from USD 702 million to USD 1404 million in 2019-20.

Machinery items that witnessed sharp growth in imports (fig in USD million)							
HS Code	Product Description	2011-12			2019-20		
		Export	Import	Trade Balance	Export	Import	Trade Balance
84463090	OTHER WEAVING MACHINES	1.48	192.72	-191.24	1.55	313.76	-312.21
84778010	MACHINERY FOR MAKING RUBBER GOODS	2.37	46.61	-44.24	5.72	307.11	-301.39
84198990	MACHINERY, PLANT AND LAB EQUIPMENTS	28.07	134.82	-106.75	62.88	238.88	-176
84223000	MCHNRY FR FILLNG,CLOSNG,SEALNG,CAPSULNG OR LABELLING BOTTLES,CANS,BOXES,BAGS/OTHR CONTAINERS;MCHNRY FOR AERATING BEVER	79.45	163.12	-83.67	112.28	228.31	-116.03
84775100	MCHNRY FR MOULDNG/RETREADNG PNEUMTC TYPES OR FR MOULDNG/OTHERWISE FORMNG INNR TUBES	21.93	42.53	-20.6	18.72	99.03	-80.31
84775900	OTHER MACHINERY FR MOULDNG/OTHRWSE FORMNG	10.02	66.01	-55.99	5.34	96.1	-90.76
85158090	ELECTRIC MACHINES AND APPARATUS	4.53	48.76	-44.23	7.73	95.6	-87.87
84515000	MACHINES FOR REELING,UNREELING,FOLDING CUTTING OR PINKING TEXTILE FABRICS	0.46	8.11	-7.65	1.85	26.01	-24.16
	TOTAL OF THE ABOVE	148.31	702.68	-554.37	216.07	1404.8	-1188.73

Source: Ministry of Commerce & Industry, Compiled by MVIRDC

MSME Ecosystem in Machinery manufacturing

India's MSME sector can play a critical role in promoting domestic production of these machineries and thereby reducing reliance on imports. Already, there are several small and medium enterprises engaged in manufacturing these machineries.

In the machine tools sector, there are more than 800 manufacturers, of which majority are small and medium enterprises. These units produce standard Computer Numerical Control (CNC) machines, gear cutting, grinding, medium size machines, electrical discharge machines, presses, press brakes, pipe bending, rolling and bending machines. There are 500 units, mostly small and medium enterprises, manufacturing dies, moulds and press tools. India has more than 200 small and medium plastic machinery manufacturers producing blow moulding machines, injection moulding machines and extrusion moulding machines.

India has around 200 small and medium units manufacturing earthmoving and mining machinery such as backhoe loaders, compactors, cranes, concrete pumps, dumpers, hydraulic excavators etc.

In the textile machinery sector, India depends on imports to the extent of 70% despite having 1446 units engaged in domestic manufacturing. More than 80% off these units are small and medium enterprises manufacturing spinning machines, weaving machines, winding and processing machines, synthetic fiber machines etc. India also has many small and medium units manufacturing printing machinery and food processing machineries. There are around 500 units producing printing machines, while 2500 units making food processing machines, of which 95% and 85% are small and medium units respectively.

Textile machinery is one sector where India is heavily dependent on imports and at the same time, it is an export-oriented sector. For instance, India exports as much as 65% of its textile machinery production. In plastic machinery and heavy electrical equipment, the share of export in domestic production is more than 25%. On the other hand, the share of exports in domestic production is less than 10% in machine tools, dies, moulds & press tools and printing machineries sectors. The following table highlights the share of export in domestic production in these nine machinery sectors.

Exports as share of domestic production						
S. No.	Sub sector	2016-17	2017-18	2018-19	2019-20	2020-21
1.	Machine Tools	6%	5%	7%	12%	8%
2.	Dies, Moulds and Press Tools	12%	10%	8%	8%	8%
3.	Textile Machinery	37%	43%	53%	48%	65%
4.	Printing Machinery	10%	10%	10%	10%	10%
5.	Earthmoving and Mining Machinery	15%	15%	14%	12%	6%
6.	Plastic Processing Machinery	30%	33%	8%	14%	36%
7.	Food Processing Machinery	14%	16%	31%	NA	NA
8.	Process Plant Equipment	48%	49%	27%	28%	NA
9.	Heavy Electrical Equipment Sector	25%	24%	28%	34%	38%
	Total	23%	23%	24%	29%	33%

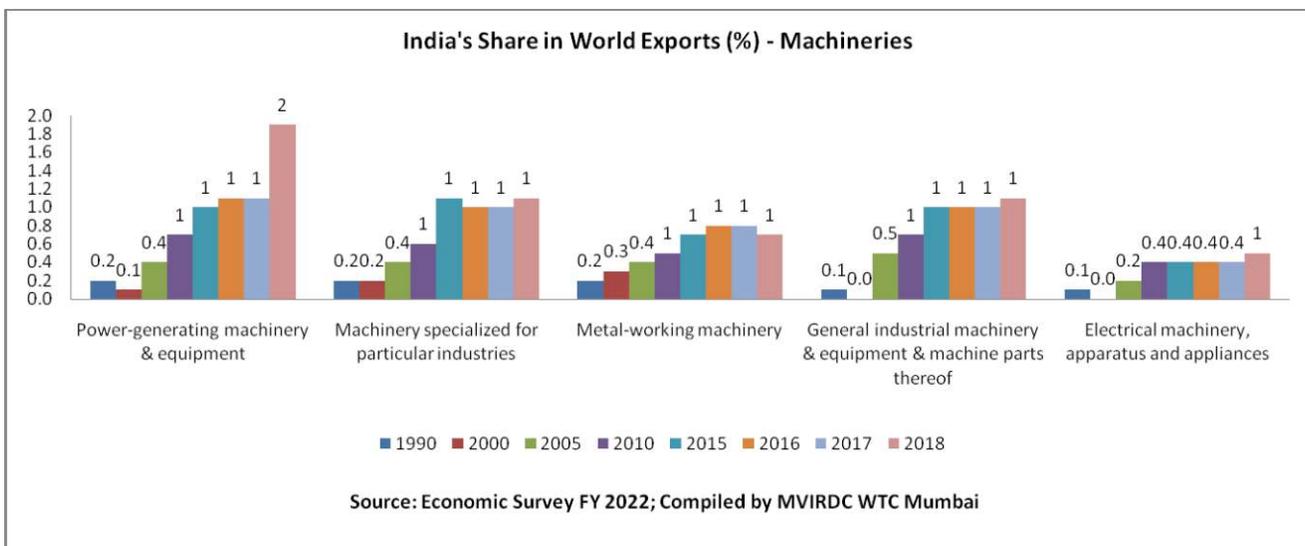
Source: Annual Report 2021-22; Ministry of Heavy Industries, Government of India; Compiled by MVIRDC

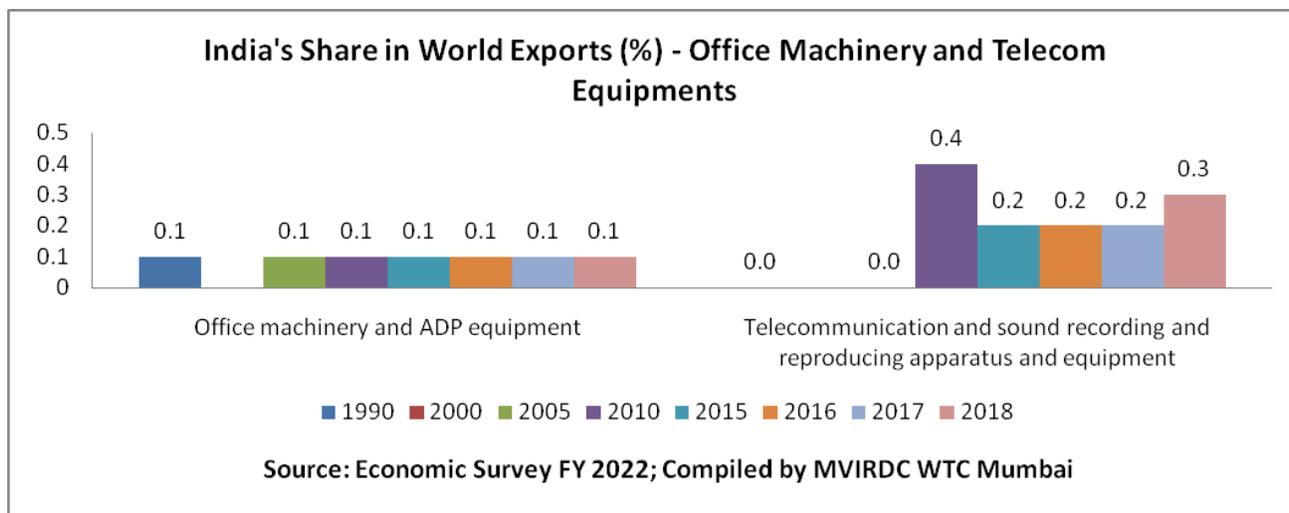
As the following table shows, India's overall export of nine machinery items grew at a compounded annual growth rate of 6% between 2016-17 and 2020-21. Specifically, export grew in double digit in machine tools, food processing machineries, heavy electrical equipments and plastic processing machineries between 2016 and 2021. On the other hand, exports of printing machinery, earthmoving and mining machineries, dies, moulds and press tools have declined during this period. Export of textile machineries has grown at single digit during this period.

India's Export of Capital Goods (in Rs. Crore)							
S. No.	Sub sector	2016-17	2017-18	2018-19	2019-20	2020-21	CAGR
1.	Machine Tools	361	354	673	768	531	10.1%
2.	Dies, Moulds and Press Tools	1700	1600	1100	1138	973	-13.0%
3.	Textile Machinery	2438	2939	3665	2556	3307	7.9%
4.	Printing Machinery	1332	1235	1180	1230	1012	-6.6%
5.	Earthmoving and Mining Machinery	3700	4800	5300	3583	1816	-16.3%
6.	Plastic Processing Machinery	900	1100	247	335	1348	10.6%
7.	Food Processing Machinery	2178	2560	2686	2737	4555	20.3%
8.	Process Plant Equipment	9291	8950	7450	8330	NA	NA
9.	Heavy Electrical Equipment Sector	39280	41677	52910	60698	63839	12.9%
	Total	61180	65215	75211	81375	77381	6.0%

Source: Annual Report 2021-22; Ministry of Heavy Industries, Government of India

As the following chart shows, India's share in world export of machineries has improved since 1990. However still, our share in world export is less than 2% in most of the broad machinery categories except in power generating machinery segment, where our share is 2%. In the office machinery and telecom equipment segment, our share in world export is less than 0.3%.





India's exports of all types of industrial machineries doubled from USD 10 billion in 2011-12 to USD 20 billion by 2019-20. India exports turbojets, turbo propellers, gas turbines (electrical machinery), industrial valves, gears, automobile engines etc. However, India continues to have trade deficit in this segment with annual imports at USD 43.36 billion compared to USD 20 billion exports. India largely imports turbojets, personal computers, laptops, desktops, microprocessors, food processing machineries and other industrial machineries.

Heavy industrial machineries

India's export of heavy industrial machineries used in textile, paper, chemicals and cement manufacturing grew a whopping 82% since 2011-12. Export of these machineries grew from USD 447 million in 2011-12 to USD 816 million in 2019-20. However, there is still untapped export potential as India's share in world exports is miniscule in these product categories.

Major machineries exported in this category are water tube boilers, machineries for filling and labeling containers, injection moulding and other moulding machines, cotton processing machines etc. The following table provides the list of five machineries that witnessed sharp growth in exports since 2011-12. India's exports of these five categories of machineries grew from USD 191 million in 2011-12 to USD 512 million in 2019-20, while our imports grew at a lower pace from USD 539 million to USD 668 million during this period.

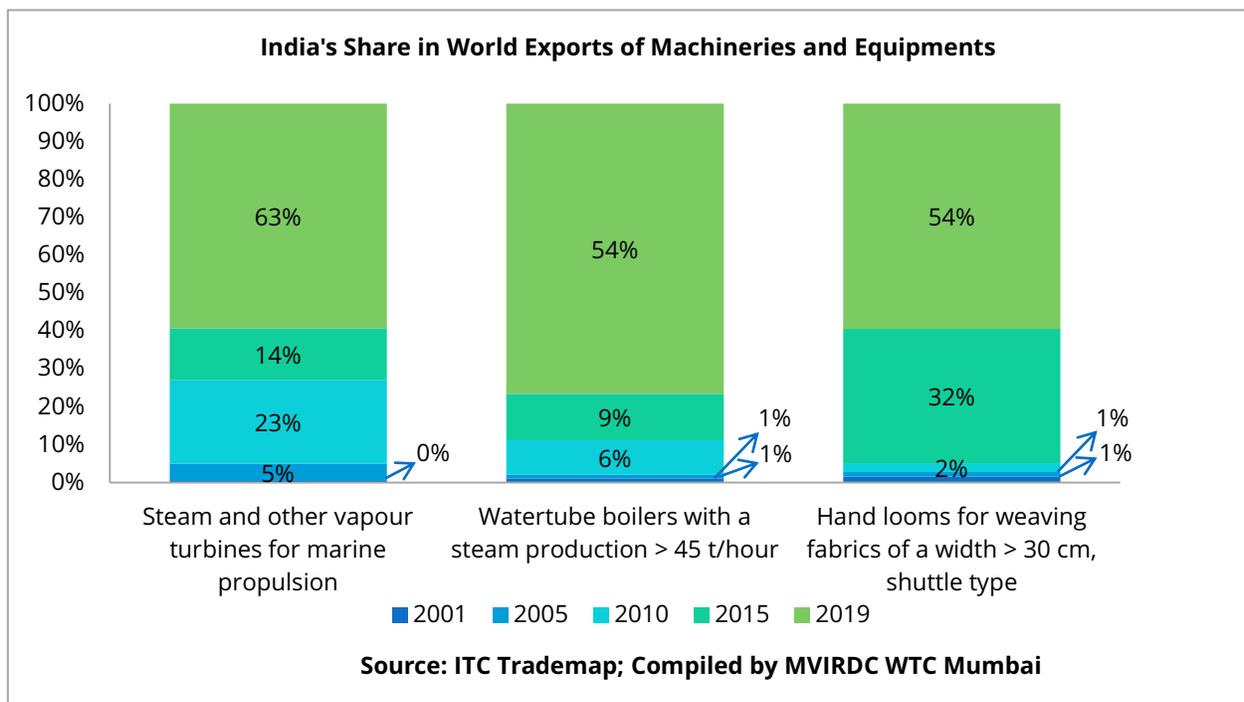
Machinery items that witnessed sharp growth in exports (fig in USD million)								
HS Code	Product Description	2011-12			2019-20			World exports in 2019
		Export	Import	Trade Balance	Export	Import	Trade Balance	
84021100	WATER TUBE BOILERS WITH STEAM PRODUCTION >45T/HR	45.99	35.24	10.75	247.25	3.35	243.9	555.5
84223000	MACHINERY FOR SEALING BOTTLES AND OTHER CONTAINERS	79.45	163.12	-83.67	112.28	228.31	-116.03	9199
84198990	OTHER MACHINERY FOR HEATING, COOLING, STERILIZING ETC	28.07	134.82	-106.75	62.88	238.88	-176	8375
84771000	INJECTION-MOULDING MACHINES	31.84	187.56	-155.72	48.08	178.18	-130.1	5189
84519000	PARTS OF THE MACHINES USED IN TEXTILE PROCESSING	5.81	18.33	-12.52	42.23	20.01	22.22	924
	TOTAL OF THE ABOVE	191.16	539.07	-347.91	512.72	668.73	-156.01	24242.5
	TOTAL MACHINERY	447.11	2802.71	-2355.6	816.98	2899.53	-2082.55	

Source: Ministry of Commerce & Industry, Compiled by MVIRDC

Among these machineries, India is the leading exporter of large sized water tube boilers as it surpassed Chinese exports in 2017. India's export of large sized water tube boilers stood at around USD 250 million in 2019 compared to China's exports of USD 68 million. Other major exporters of this product are Spain, Italy and South Korea. India exports USD 247 million of this machinery and it is 45% of the world exports.

In case of machinery for sealing bottles and containers, India ranks 16th in world export and it hardly contributes 1% to the world exports. The leading exporters of this machinery are: Germany, Italy, China, USA, Netherlands, Japan and France. Similarly, India's share in world exports is as low as 1% in case of the other two machinery categories listed in the above table. These are machineries used for heating, cooling, sterilizing and other industrial purposes. They also include injection moulding machines and parts of the machines used in textile processing. Considering that India has witnessed strong growth in exports of these machines in recent years, we have a chance to cater to the global demand for these machineries. As the above table shows, world exports of these five categories of machinery stood at USD 24 billion, of which India's exports was hardly 512 million.

Share of India in three machineries is more than 50%, as highlighted in the following chart. These machineries are: marine propulsion turbines, watertube boilers and weaving handlooms.



Government of India can provide production linked incentives to manufacturers of these machineries so that they can increase the scale of their operations.

Reducing trade deficit in machinery sector

As can be seen from the following table, India is a net importer and hence incurs trade deficit across all the nine segments of machineries. In 2020-21, India had trade surplus in textile machinery and food processing machinery, while in 2018-19 and 2019-20, India had trade surplus in process plant equipments, as can be seen from the following table. But in all other years, India was a net importer of these machineries.

India's trade deficit in Capital Goods Sector (in Rs. Crore)						
S. No.	Sub sector	2016-17	2017-18	2018-19	2019-20	2020-21
1.	Machine Tools	5812	7398	11717	9520	5434
2.	Dies, Moulds and Press Tools	-500	-250	4400	5218	5027
3.	Textile Machinery	7660	7748	7169	6717	-3226
4.	Printing Machinery	6402	7087	7742	7739	5802
5.	Earthmoving And Mining Machinery	500	700	300	1229	-650
6.	Plastic Processing Machinery	1400	1500	1057	579	512
7.	Food Processing Machinery	1508	1340	2056	1750	-2590
8.	Process Plant Equipment	2634	1650	-3250	-3680	NA
9.	Heavy Electrical Equipment Sector	16011	13931	18660	7269	-5503
Source: Annual Report 2021-22; Ministry of Heavy Industries, Government of India						

As can be seen from the above table, India is largely dependent on imports for most of the industrial machineries. Even though there are many small and medium units engaged in manufacturing industrial machineries, end user industries prefer to source from abroad because of superior quality of imported goods. Therefore, the key to attain self-reliance is to develop innovative technologies that can improve the quality and performance standards of the locally made machineries. India is already setting up Centres of Excellence (CoE) in IIT Madras, IIT Kharagpur, IISc Bengaluru and other academic and research institutions to develop cutting edge technologies in this sector. The government may also consider setting up similar CoEs in Industrial Training Institutes across various states and promote greater involvement of MSMEs and start-up enterprises in these Centres of Excellence.

Promoting MSMEs through cluster development can go a long way in achieving economies of scale and increasing domestic production of machineries. State governments and industry associations across various states may form special purpose vehicle (SPVs) to set up large clusters with common facility centres. Such SPVs can set up Common Engineering Facility Centres (CEFC) in their clusters by applying for grant in aid from the central government.

Government and industry associations can also facilitate Indian MSME units to form joint venture with leading foreign manufacturers of industrial machinery. Joint venture and technology collaboration with foreign entities can improve the product standards and facilitate technology upgradation of local units. Also, MSMEs in India can buy global technologies that are readily available for acquisition. Government of India offers financial grants to local MSMEs for buying global technologies in the field of industrial machineries.

9) Ships, Boats and Floating Structures

In early September 2020, Union Shipping Ministry mandated all Major Port Trusts to purchase or charter tugboats that are 'Made in India' in order to increase self-reliance in the shipbuilding industry. Ports use tug boats to guide large ships to berth at a loading or unloading terminal. In another welcome development, Cochin Shipyard Ltd (CSL) has partnered with 10 global firms to develop a maritime park, with ship building and repairing facilities in Kochi.

There is huge potential for increasing domestic manufacturing capacity for cargo ships, tankers, cruise ships, tugboats, naval ships, fishing boats and other special purpose vessels. Although indigenous procurement of naval ships has gathered pace after the launch of Make in India programme, India continues to depend on imports for cargo ships and ancillary parts used in ships. Currently, India ranks 16th in terms of global ship ownership (in terms of gross tonnage) and Indian ships carry hardly 1.3% of the world EXIM cargo. India's global ranking in world shipbuilding has not kept pace with

the country's increase in EXM cargo and hence majority of the ships registered under Indian flags are manufactured in foreign ship yards.

However, with focused policy intervention, both at the central and state government levels, India can get back its lost glory and enhance its global ranking in shipbuilding. India had a prominent position in the world shipbuilding industry before Independence. The second oldest floating ship in the world, HMS Trincomalee, was built in Bombay for the British navy. The Minden, which was the first ship commissioned by the British Royal Navy from India, was built by Jamshedji Bomanji Wadia at the Duncan Docks in Bombay in 1810.

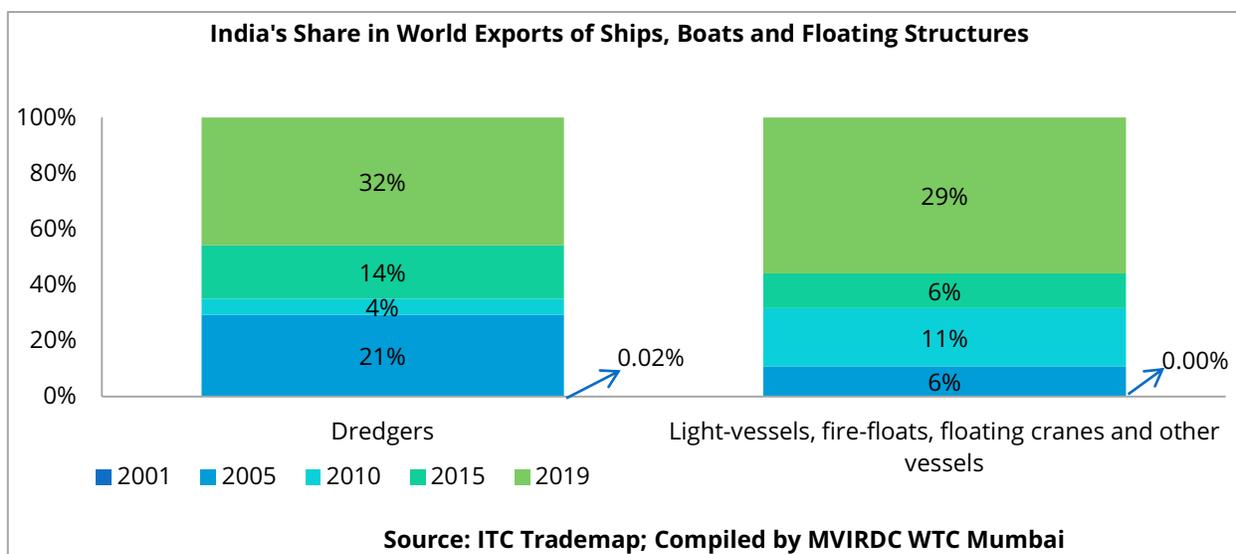
Development of shipbuilding has accompanied the economic progress of Britain, Japan, South Korea and more recently China. Today, China ranks third in terms of global ship ownership (in terms of gross tonnage) and holds the top position in shipbuilding (in terms of orderbook).

Export opportunity

World export market for ships, vessels and floating structures stands at USD 82 billion, of which India exports around USD 5 billion or 7% of world exports as of 2019. China, South Korea, and Japan are the leading exporters of ships and vessels. South Korea and Japan together contribute around 40% to world exports.

In 2019-20, India incurred marginal trade deficit in ships and vessels sector as it exported USD 4.5 billion worth of these goods, while importing USD 5.6 billion. India exports cruise ships, dredgers, floating or submersible drilling platforms, tankers, tugs etc.

Export of ships, boats and floating structures (2019)		
Countries	Exports (USD million)	Share in world exports
South Korea	18887.7	23%
Japan	13799.6	17%
India	5799.5	7%
Singapore	819.4	1%
Vietnam	574.2	1%
Philippines	566.0	1%
Hong Kong	116.5	0%
World	82042.4	100%
Source: World Integrated Trade Solutions (WITS)		



India's trade in ships and vessels (2019-20) fig in USD million		
Product Description	Export	Import
Other vessels or floating structures	1596.64	2696.52
Cruise ships, excursion boats and	675.74	259.37
Dredgers	634.41	494.47
Floating or submersible drilling	475.19	136.06
Tankers	382.76	235.1
Tugs and pusher craft.	296.19	363.04
Other vessels for the transport of goods	271.75	60
Other related goods	223.15	736.63
Other related goods	1.81	4.32
Warships	1.66	0
Inflatable rafts	0.26	1.91
Vessels and other floating structur	0.18	652.33
Motorboats, other than outboard	0.11	0
Other related goods	0.07	1.25
Sailboats, with or without auxil	0.04	0.11
Fishing vessels; factory ships and	0	0.05
Inflatable	0	0.06
Total	4559.96	5641.22

Source: Ministry of Commerce, Gol

Shipbuilding, ship repair and ship recycling sectors present great opportunity for small and medium enterprises (SMEs) as sub-contractors of shipyards, ship equipment and ancillary part manufacturers. Ancillary parts such as shipboard material, equipment and systems account for about 65% of the value of a ship.

Although India's share in global shipbuilding grew from 0.4% in 2006 to touch 1.1% in 2009, it declined subsequently

because of lack of competitiveness of domestic industry. Unfavourable domestic tax regime, lack of research and skill development institutions, non-availability of long term funding are said to be the major reasons for poor competitiveness of domestic shipyards. The withdrawal of the Shipbuilding Subsidy Scheme 2002, in August 2007, is cited as another reason for decline in the competitiveness of the domestic industry. The global financial crisis of 2008 also led to decline in world trade and fall in crude oil prices, thereby causing downturn in the global shipbuilding industry. Even though the global market for shipbuilding recovered after 2017, India has not made much progress in enhancing domestic shipbuilding capacity. Some private shipbuilders such as ABG shipyard and Bharti Shipyard had to wind up business because of lack of orders.

Brazil, Vietnam and Philippines are the emerging players in the global shipbuilding industry. Brazil has strengthened its shipbuilding industry by setting up a robust financing mechanism in the form of the Merchant Marine Fund (FMM). Government of Philippines, on the other hand, developed its shipbuilding sector, by declaring it as a 'pioneer industry' under the Executive Order of 2006. Vietnam has developed a state-of-the art ship repairing yard by forming joint venture with Japan's Hyundai Mipo Dockyard.

Way Forward for India

India has the potential to develop its shipbuilding industry through a focused policy initiative. The Parliamentary Standing Committee on Transport has called for a cluster-based approach to develop the domestic shipbuilding. A cluster-based approach calls for a symbiotic development of large shipyards and ancillary units that supply critical parts and services. India needs to develop ecosystem for ancillary units by reducing our dependence on imports for critical parts and equipments used in ships. Local ancillary units are operating at sub-optimal scale, which renders them uncompetitive, as a huge chunk of the parts and equipments are imported.

Suggested Policy Actions

- 1 While importing ships from abroad, Indian shipping companies may ensure that foreign suppliers procure some portion of parts and equipments from Indian ancillary units.
- 2 Government may introduce standardization in design and specifications for parts and components used in vessels and ships. This will help domestic ancillary units scale up their operation and cater to global demand based on standard design and specifications.
- 3 Development of coastal shipping and inland waterways will boost demand for cargo vessels and thereby support domestic shipbuilding sector
- 4 **Set up Maritime Fund:** Although Government of India provided infrastructure status to shipping industry in 2016, it has not addressed the financial woes of local shipyards. Therefore, the government needs to set up a dedicated fund for capacity expansion of local shipyards. This will help local shipyards increase scale of operation and become globally competitive. As local shipbuilding activity develops, ancillary companies from foreign countries will set up units in India to cater to the increase in demand for parts and components.
- 5 **Address differential taxation:** Indian shipping companies prefer to order ships made in foreign shipyards as prevalence of GST and other local levies undermine the cost competitiveness of locally built ships. Indian ship operators need not pay import duty on the vessels being constructed at foreign ship-

yards. This differential taxation policy for locally made ships and foreign built ships hinders the development of domestic shipbuilding industry.

- 6 **Exploring Potential Demand from Overseas Markets:** India can enhance export of ships and vessels by exploring potential markets in Africa and Latin America. Indian shipyards have the capability to meet the growing demand for naval vessels and ships in Africa and Latin American countries. Identifying new export opportunities can increase the scale of domestic operation and hence competitiveness of the local industry.
- 7 **Shipbuilding policy at state level:** All the coastal states should periodically review their maritime policy and should provide special emphasis for shipbuilding within this policy framework. Gujarat Maritime Board (GMB) has been in the forefront in promoting shipbuilding parks and clusters under its Shipbuilding Policy 2010. The Policy envisages government incentives for small enterprises to set up manufacturing units in clusters and common infrastructure facilities such as logistics to reduce cost of operation.
- 8 **Research and skill development institutions:** India may develop a robust institutions and centres of excellence for promoting indigenous research and innovation in ship building technology. We should also promote cross-border partnership in technology and joint innovation projects. India should also create more maritime skill development institutions to cater to the increasing demand for engineers and technicians in ship repair and ship building sectors.



Services Exports

Export of services has been less severely affected from the pandemic compared to goods export last year. India's export of services has declined 5.7% to USD 205 billion in April-March 2020-21 compared to 7.2% fall in goods exports during this period. Similarly, import of services contracted less compared to import of goods. While India imported 18% less goods, in terms of value in 2020-21, the corresponding decline in services imports stood at 11%. India's surplus from services trade grew marginally to USD 86.2 billion in 2020-21 from USD 83 billion in the previous year.

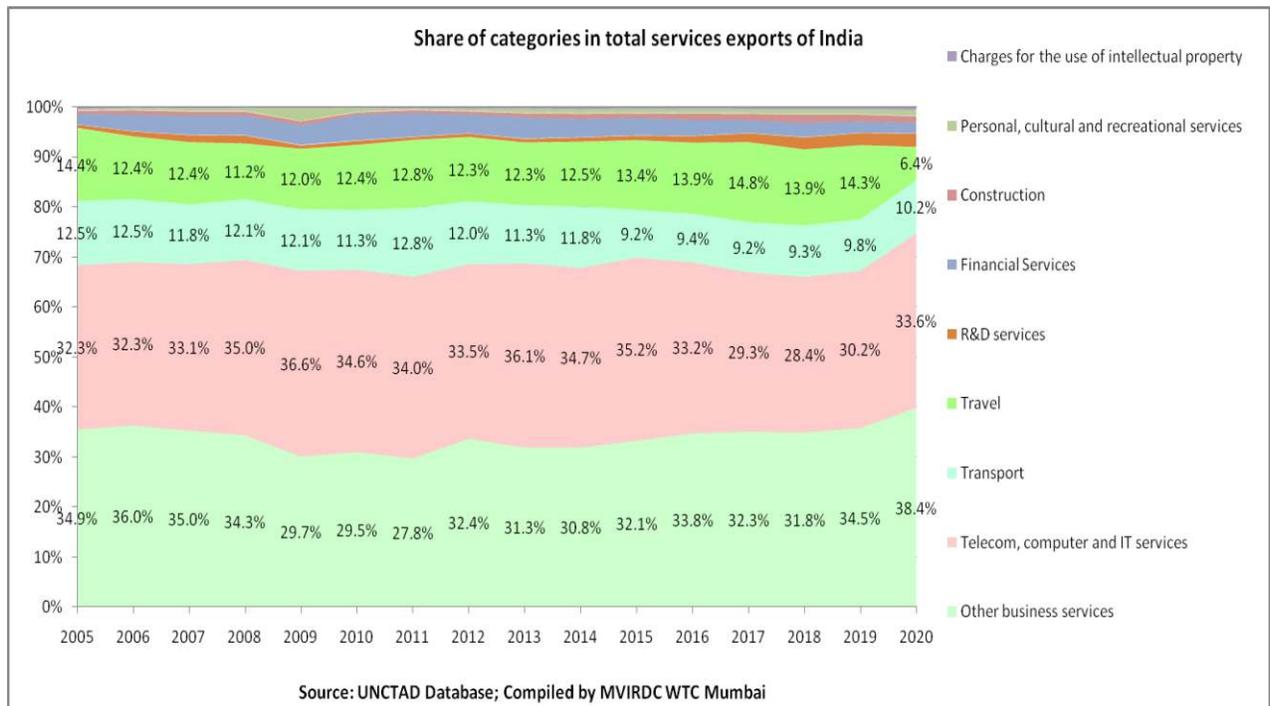
Growth trend

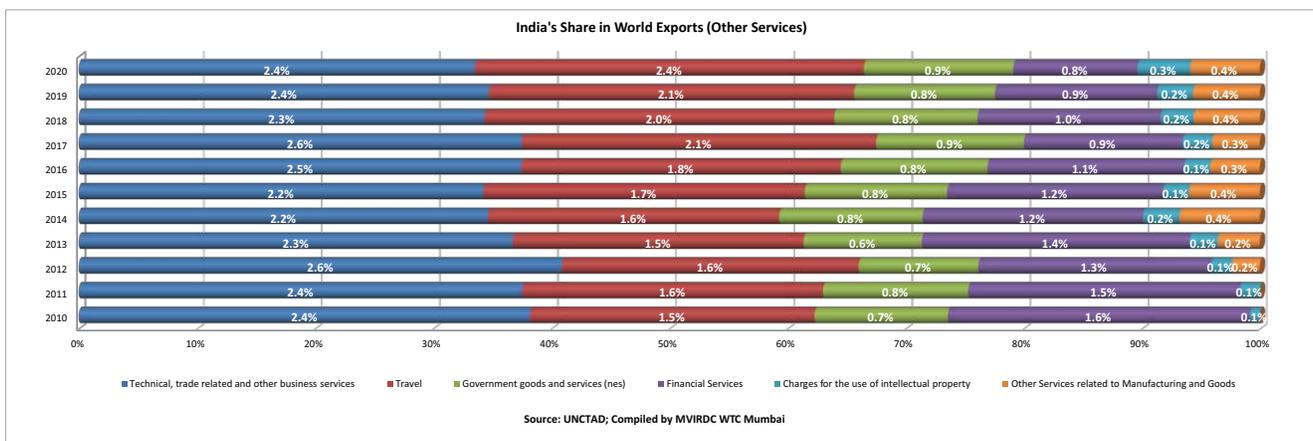
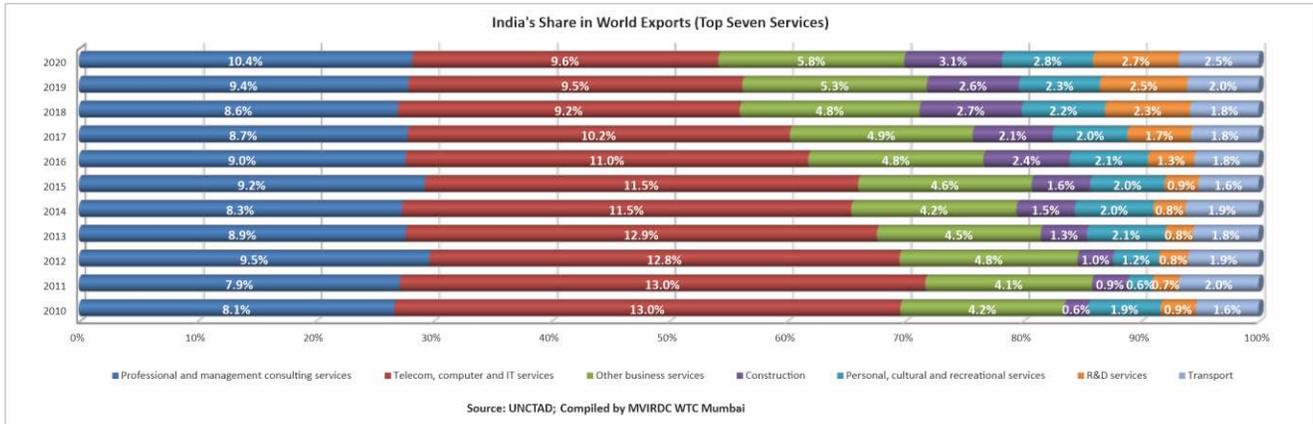
In the last 20 years (since 2000-01), India's services exports have grown at a compounded annual growth rate of 14.5%, from USD 16 billion in 2000-01 to USD 213 billion in 2019-20. The corresponding CAGR for goods exports during this period was 10.8%. The year 2020-21 is only the third time since 2000-01 that India's services exports declined on a yearly basis. In the last 20 years, our service exports have declined on three instances, once in 2009-10 by 9% after the global financial crisis of 2008, second time in 2015-16, marginally by 2.4% and for the third time in the last financial year due to the COVID pandemic. As a result of the sharp growth in services exports, its share in the overall exports of the country grew from 27% in 2000-01 to 33% in 2010-11 and further to 41% in 2019-20.

Segments of services

Exports

Telecom and information technology services account for 45% of the overall services exports of the country, and this is followed by other business services, travel and transport, with their respective shares of 21%, 14% and 10% in the overall services exports of the country. Thus, these four segments account for 90% of the overall services exports of India. Financial services account for hardly 3% of the overall services exports. Construction and Insurance & pension services contribute 1% each to the service exports. Personal, cultural and recreational services also have a share of 1% in the total services receipts. The share of manufacturing services, maintenance and repair services is less than 1% in the overall





Imports

On the import side, other business services account for 36% of the overall services imports. Other business services include audit, accounting, legal, marketing, advertisement and miscellaneous business services. The shares of transport and travel services are 19% and 17% respectively. Thus, other business services, transport and travel together contribute 72% to total services import bill. Telecom and information technology services contribute another 8%, while intellectual property services and personal, cultural & recreational services contribute 6% and 2.4% respectively to the import bill.

Balance of receipts

As mentioned earlier, India has a surplus of around USD 86 billion in annual services trade. Almost 100% of this surplus comes from our excess export of telecom and information technology services. India also produces excess foreign exchange by exporting travel and financial services. However, this does not add to the overall surplus of services trade as we incur deficit in other segments of services.

Among all the service categories, India has the largest deficit of USD 6.7 billion in intellectual property services. This is because local companies pay more fees for patents, copyright, besides royalties, technical fees and other forms of charges for using intellectual properties of foreign companies than the corresponding fees we receive from foreign companies. Therefore, Indian companies need to focus on developing indigenous technologies so that we can reduce our reliance on foreign technologies, which increases our import bill in the form of royalties and technical fees. At the

same time, we should remember that the scope for reducing import bill in this segment is limited as Indian subsidiaries of multinational companies pay intellectual properties to these companies for using their technologies and know-how within this country.

India needs to promote domestic research and innovation to reduce dependence on foreign countries for technology. Registration of Intellectual property rights such as patents and industrial designs is an indicator of research and innovation in an economy. As the following table highlights, India ranks seventh in terms of number of patents granted by local patent offices. Countries such as China, USA, Japan, South Korea, Europe and Russia are ahead of India in terms of patent grants. Similarly, India ranks 12 out of more than 140 countries in terms of number of industrial design applications filed.

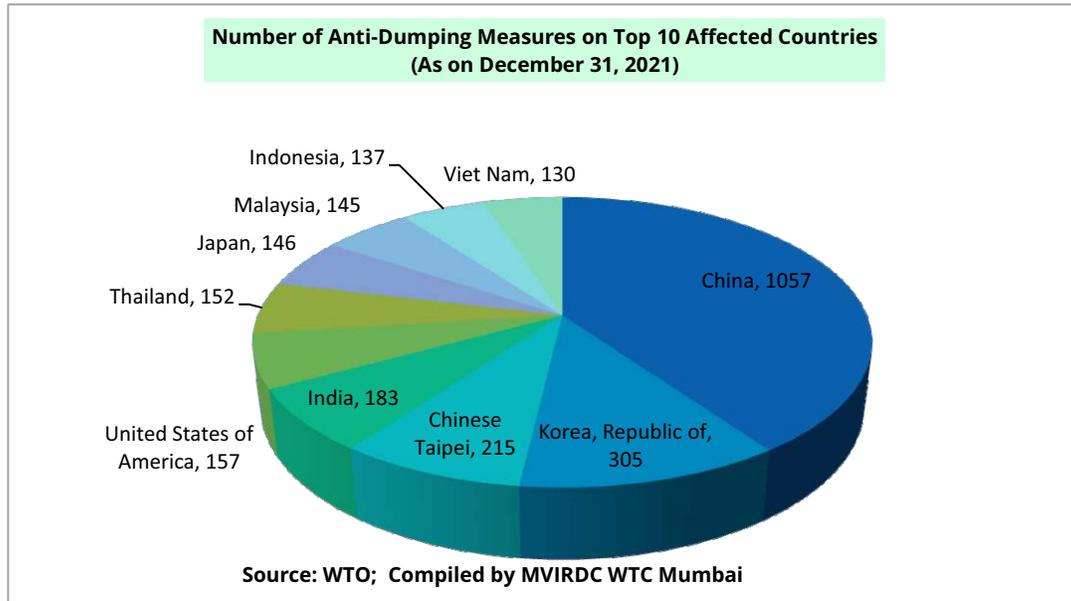
Patent grants by office of Origin				
Serial No.	Name	Total	Resident	Grants by office Non-resident
1	China	530127	440691	89436
2	United States of America	351993	164562	187431
3	Japan	179383	140329	39054
4	South Korea	134766	103881	30885
5	European Patent Office	133706	58653	75053
6	Russian Federation	28788	17181	11607
7	India	26361	4988	21373
8	Brazil	20407	1793	18614
9	Australia	17778	940	16838
10	France	12874	11339	1535
11	United Kingdom	9772	4470	5302
12	Malaysia	8206	1147	7059
13	Indonesia	7981	641	7340
14	Israel	4668	862	3806
15	Iran (Islamic Republic of)	3660	3294	366
16	Thailand	3525	202	3323
17	South Africa	3466	313	3153
18	Turkey	2063	1929	134
19	Sri Lanka	273	52	221
20	Bangladesh	140
	Total	1592000	996500	595500
Sources - World Intellectual Property Indicators 2021				

Industrial design applications by office and origin, 2020				
Serial No	Name	Application design count by office		
		Total	Resident	Non-Resident
1	China	770362	752339	18023
2	European Union	113196	66241	46955
3	South Korea	70821	64005	6816
4	United States of America	50743	21686	29057
5	Turkey	47653	42073	5580
6	Germany	40638	35764	4874
7	United Kingdom	32731	21361	11370
8	Japan	31650	22392	9258
9	France	31196	29572	1624
10	Italy	25364	25058	306
11	Iran (Islamic Republic of)	14984	14896	88
12	India	12793	8962	3831
13	Russian Federation	10589	4816	5773
14	Australia	7359	2664	4695
15	Brazil	6263	4258	2005
16	Thailand	5818	4245	1573
17	Indonesia	3520	2300	1220
18	Israel	1762	746	1016
19	South Africa	1708	970	738
20	Malaysia	1701	575	1126
21	Bangladesh	1241	1162	79
22	Sri Lanka	281	249	32
	Total (2020 estimates)	1387800	1170800	217000
Source: World Intellectual Property Indicators 2021				

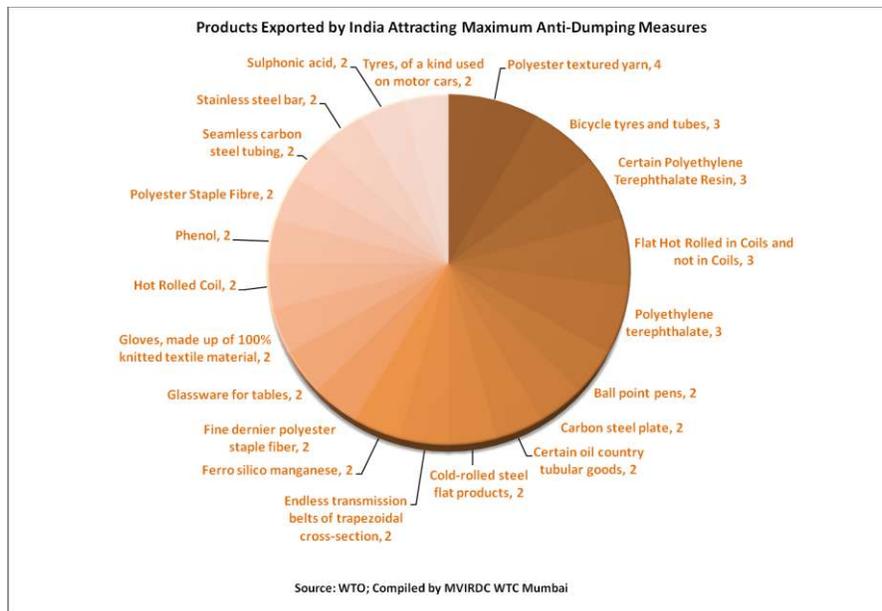
Apart from intellectual property charges, India incurs considerable deficit in transport and other business services segments. Transport charges are paid by Indian exporters and importers for hiring shipping, logistics and air freight services from foreign companies. India has deficit in other business services because we rely on foreign companies for audit, accounting, legal and other professional services more than the value of these services that we provide to foreign clients.

Anti-dumping Duties and Exports

Anti-dumping duty is a non-tariff barrier which impedes the export competitiveness of a country in the importing country. Typically, an importing country imposes anti-dumping duty on an exporter if the former suspects unfair trade practices on the part of the exporter. India ranks fourth, after China, South Korea and Taiwan, in the list of most affected countries from anti-dumping duties. There are 183 anti-dumping measures imposed by foreign countries on Indian exports, as the following chart shows.



Iron & steel, plastics, textile, rubber tyres and chemicals are the Indian products which attracted most number of anti-dumping duties from the importing countries, as the following chart shows. Product-wise list of countries that imposed anti-dumping duties on India is provided in Annexure 1 of this report.



Primary Survey– Identifying Export Potential, Challenges and Remedial measures

MVIRDC World Trade Center Mumbai conducted a primary survey across export promotion agencies, authorities from special economic zones (SEZs), chambers of commerce, research institutes and development agencies. The objective of the survey was to gather views and insights from people working closely with micro, small and medium enterprises (MSMEs) on three aspects, viz. 1) potential export opportunities, 2) challenges faced by them in realizing this export opportunity and 3) policy measures to address these challenges. Specifically, the survey examined export potential in gems & jewellery, leather, ceramics and spices. The survey also put spotlight on the potential for export of agriculture, horticulture and handicraft products from north east India. Following is the response received from various agencies for our survey.

Survey with Gems and Jewellery Export Promotion Council (GJEPC)

By Mr. Sabyasachi Ray, Executive Director -GJEPC India

1. What are the sub-segments within gems & jewellery where India has untapped export potential?

The Indian gems and jewellery sector has an export potential of around USD 70 billion in 2020, of which more than 50% has been realized. The untapped export potential in the gems and jewellery sector stood at USD 31.7 billion in 2020.

The following five sub-segments within the Indian gems and jewellery sector has untapped export potential :

1. Cut and polished diamonds
2. Gold Jewellery
3. Silver Jewellery
4. Rubies, Emeralds, and Sapphires
5. Semi-precious stones

2. What are the challenges faced by the industry in enhancing its competitiveness in the global market?

The following are some of the challenges faced by the gems and jewellery industry related to different product categories:-

- a) Rise in import duty on cut and polished diamonds from 2.5% to 7.5%

The import duty increases in cut and polished diamonds from earlier 2.5% to 5% was announced in the Union Budget 2018 and to 7.5% in September 2018 has increased the cost of business for the sector and is adversely impacting exports and trade. India, a global leader in Diamond Processing, is not just a Hub for processing roughs, but also caters to varied forms of re-processing of diamonds and diamond jewellery. Russia, Canada, Botswana, Angola, Namibia are major rough diamond mining countries and account to approximately 72% share in total global production. Many of these producing countries have introduced diamond beneficiation scheme, wherein they offer incentives for conducting downstream activities, such as cutting and polishing,

that create additional economic value to a producer country beyond just the value of the rough diamonds it produces.

Suggestions:

Import duty should be reduced on the imports of cut and polished diamonds in India.

b) Accumulation of Input Tax credit (ITC) under the Goods and Services Tax (GST) regime in case of gems and jewellery industry.

There is significant accumulation of Input Tax Credit (ITC) due to rate of tax on the cut and polished diamonds (presently at 0.25%) being significantly lower than the rate of tax on the inputs and input services. This backlog is an ongoing one and the mechanism to claim refund under inverted duty structure does not seem to be available to the industry.

Suggestions :

- Granting refund of Input Services under Inverted Duty Structure
- Granting one Time Refund of ITC accumulation due to change in GST Tariff
- Rationalization of GST rate applicable on Cut & Polished Diamonds

c) Non availability of raw material – gold

Exporters face huge challenge in getting duty-free gold for export purposes, as Government of India has authorized 7 different agencies as per FTP and 34 banks to serve as the nominated agencies in India whereas only 5-6 banks and 2-3 agencies are providing export gold, even though these Nominated agencies have their offices in Pan India, still there is non-availability of duty-free gold for export purposes.

Suggestions

- Release of bond by Customs of nominated agency once exports of jewellery takes place against supply of duty free gold to an exporter. LUT to be provided by exporter from exports till the export proceeds are repatriated.
- Allowance of replenishment of gold/silver/platinum by foreign buyer against exported jewellery.

d) High import duty of cut & polished coloured gemstones

The majority of coloured gemstones are imported as rough in India for cutting and polishing the same but there are many gemstones which are not being processed or manufactured in India hence these gemstones are imported in India for studding the same in jewellery, if there is a specific demand of international client. Therefore, increase in import duty on cut and polished coloured gemstones by 200% for two instances from 2.5% to 7.5% has left no other option for our jewellery manufacturers but to forego such export orders which demands import of those gemstones due to the fact that higher import duty would render jewellery pricing uncompetitive for our manufacturers as compared to other competing countries.

Suggestion

It is requested to reduce Basic Custom duty levied on Cut & Polished Coloured Gemstones

h) Duty Drawback rates are not at par with prevailing import duty for silver jewellery

The rates of duty drawback on gold/silver needs to be revised which have not been revised in last 1.5 years. Many exporters who have done shipment under duty drawback scheme the amount is pending since 2013. For some cases of duty drawback, scroll has been generated by customs but due to non-reflection on scroll number the banks are unable to credit the amount to exporters account. Issue in generation of scroll number in EDI system for export under duty drawback scheme.

Suggestions

- Revision of duty drawback rates on gold/silver
- Introduction of Duty Drawback on gold articles and platinum
- Issue in generation of scroll number in EDI system for export under duty drawback scheme

3. What are the policy measures you suggest to the central and state governments to support the sector?

Overall policy measures

- Export Facilitation by ensuring identical fiscal and taxation environment as that of competitors through Policy intervention & Procedure simplification.
- Provision of adequate bank finance support and export credit guarantee at cheap rates
- Revamping SEZ model and attracting FDI for exports like Thailand, Vietnam, etc to become jewellery manufacturing hub
- The Import duty should be reduced on the imports of cut and polished diamonds in India to facilitate exports
- The reduction in basic Custom duty levied on Cut & Polished Coloured Gemstones
- Revision of duty drawback Rates on gold /silver
- Issue in generation of scroll number in EDI system for export under duty drawback scheme
- Development of a Cluster/District-based Export Development & Growth Plan . The following establishment plan for large, medium, and small clusters in the gems and jewellery sector can be adopted to enhance exports .

- | | | |
|----|-----------------|---|
| 1. | Large Clusters | : Jewellery/Manufacturing Park(s) set up |
| 2. | Medium Clusters | : Mega CFCs /Model Manufacturing Units set up |
| 3. | Small Clusters | : CFC/Export Facilitation Centres |



Supporting SEZ Sector

Mr. Sunil Rallan, CMD, Chennai Free Trade Zone

Key Recommendations:

1. Remove net foreign exchange condition for SEZ Units
2. Supplies from SEZs to DTA should be taxed on duty foregone principle only on the imported Inputs
3. Allow reverse job work in SEZs so that SEZ units can provide after sales services to their clients in DTA

Our exports until now have shown a linear growth path. But it's time to grow our exports exponentially. This is only possible if we are able to attract Global Supply Chains and Large Overseas Manufacturers to invest in world class manufacturing facilities in India. The large India Domestic Tariff Area (DTA) market is an attractive proposition to begin with, besides offering a stable Policy and fast Single Window approvals at all levels.

These manufacturers will grow the exports while achieving early Break Even point through DTA Supplies. When an Investment is made in a factory every investor seeks to achieve Break even point in the shortest possible time. The large Domestic Indian Market can help the Unit to achieve this while export promotion which takes times will soon pick up.

The Special Economic Zones (SEZs) and Free Trade Warehousing Zones (FTWZ) are best placed to attract these overseas units because of ready infrastructure and land availability. The SEZ policy must be delinked from Net Foreign Exchange requirement. This condition has already been challenged in the WTO as it makes the SEZ Upfront Indirect tax remissions as being an Export Linked Incentive.

Supplies made from the SEZs into the DTA must be charged to duty only on the "Duty foregone Principle" and not on the entire value of the product supplied which also includes local value addition. Further, India has signed Free Trade Agreements with countries like Sri Lanka, Japan, South Korea, and ASEAN (Association of South-East Asian Nations), under which India exempts or allows concessional rate of customs duties on many products. Thus, Indian buyers prefer to import their goods at nil duty or zero duty from these FTA partners, instead of buying from units located in SEZs. In order to encourage Indian buyers to procure from SEZ units rather than importing from FTA countries, the government may tax supplies from SEZs to DTA on "Duty foregone Principle".

Reverse job work must be permitted under the SEZ Policy. To explain reverse job work, let us take the example of a German company which has relocated one of its manufacturing units to an SEZ in Tamil Nadu from China and would like to relocate more units from China to India. This company manufacturers state-of-the art gear boxes for use in windmills. While the company wants to shift the entire production from China to India, the gear boxes, which had been imported into India along with the windmills have to be sent to China for servicing simply because reverse job work is not permitted in Indian SEZ units for their DTA clients.

This results in delays and huge costs. India is now focusing on electronics goods manufacturing and many foreign companies are evaluating the Indian SEZs for such manufacturing and relocating their supply chains from China. However, they are very worried about not been able to do reverse job work and service their DTA clients, which has to be delivered only from their overseas factories. Servicing is a key value addition in terms of employment generation, and it should be done in India. This would have also motivated the foreign companies to shift their manufacturing cum servicing centres to Indian SEZs, making our SEZs a success story and make India "Atmanirbhar Bharat".

Key Recommendation of Morbi Ceramic Industry

Ensure availability of empty containers

As with other export-oriented sectors, the Morbi ceramic industry is also facing shortage of shipping containers and rising ocean freight, which hurts their competitiveness in the global market. The freight cost for shipping one container load cargo from India to USA has almost tripled to USD 11,500 in recent months. Similarly, the cost of shipping to Africa has also almost tripled to USD 3500.

It is necessary for the shipping ministry of the Government of India to intervene and take necessary action so that the empty containers are available for export market.

If this situation continues, ceramic exporters may lose the market they have created in Europe, USA and Africa in the last many years to our competitors in Spain, Italy and Brazil. Already, importers from Europe, USA and Africa are shifting their orders to these Spain Italy and Brazil as shipping cost from these countries are more economical than that from India.

Challenges and suggestions from Leather Industry

Dr. K.J. Sreeram, Director, CSIR-Central Leather Research Institute

Key Recommendations

Promote indigenous capabilities in leather chemical production by setting up of common R&D and upscale facilities

Facilitating the use of artificial intelligence and 3D printing techniques to improve productivity and reduce cost in prototype development

Sectoral overview

India's leather industry employs 4.4 million people with an export value of USD 5.5 billion. The sector has the potential to increase the same to USD 10 billion in the next five years. India is the second largest exporter of footwear and leather garments and the fourth largest exporter of saddlery. Majority of the units in the sector are micro, small and medium enterprises (MSMEs).

Key Challenges

India still lacks the ability to manufacture bulk volumes of footwear and other products. Our productivity needs to be benchmarked against the global best practices and upgraded. In the leather sector, owing to the smaller size of the hides and skins that are predominant in the country, the ability to process larger area raw materials is low. This needs further improvement. Further, Indian manufacturing needs to align to modern day requirements such as sustainability metrics, ethics in labor, benign by design and recyclability needs.

The industry needs to focus on maximum utilization of chemicals, for which the chemicals will have to be screened for utilization efficiency. India needs a good understanding of its raw hides and skins and policy decisions for improving animal healthcare schemes so that the quality of material would improve and this would reduce wastage. On the footwear and products which have other non-leather material as well, improved utilization of automated defect identification coupled with computerized cutting of panels etc is required for reducing wastage.

Need to adopt Industry 4.0

Robotics and 3D printing are slowly finding use in the footwear sector. In general practice, footwear industries develop products (prototypes) at huge cost and send it to the buyers for approval. 3D printing has been recognized as an alternative to such processes where buyers can print the designed products at their offices and approve production. Further, Robotics would aid in improving productivity in some of the product manufacturing steps and packaging. Artificial Intelligence (AI) would find higher usage to improve the cutting value of leather. Block chain management is also likely to improve productivity in product manufacturing.

In order to improve export potential of our leather sector, the following measures are also being considered:

- a. Ease of doing business – expansion of tanning capacity for those who have adopted best available cleaner technologies, including water and energy saving techniques
- b. Promotional schemes for industries adopting technologies for value addition to wastes generated by the industry
- c. Training of personnel in design institutes in the country such as National Institute of Fashion Technology (NIFT), National Institute of Design (NID), CSIR-Central Leather Research Institute (CLRI), Footwear Design and Development Institute (FDDI) etc. by world class designers – training of trainers
- d. Setting up of design and fashion studios across the country through a hub and spoke model with design institutes serving as the hubs and industrial clusters as spokes
- e. Creation of a greater number of common facility centres for small scale product developers
- f. Enhancing the capabilities and creating more regional centres of national test laboratories such as CLRI and FDDI for improving quality parameters and facilitating quality assurance programs by the industry
- g. Developing indigenous technologies and capabilities for raw materials required for the non-leather footwear industry.
- h. Aligning Indian national laboratories involved in leather and leather products research to agencies certifying zero discharge of hazardous chemicals, road map to zero, and other requirements placed by importing nations such that such certifications can be obtained in India itself
- i. Schemes to promote Indian tradition and artisanal capabilities such as jothis, Kolhapuri chappals, leather for musical instruments, leather toys etc. through appropriate R&D for use of safe chemicals, standardization of quality and training.

The current export-oriented sectors in North Eastern states and sectors that pose untapped export potential in these states

Dr. Arun Kumar Sarma, Director General, North East Centre for Technology Application and Reach (NECTAR)

ARUNACHAL PRADESH

- The diverse topography of the state offers opportunities for non-timber-based industries such as bamboo, cane and medicinal plants.
- Arunachal Pradesh is an "Orchid Paradise", accounting for 601 species of orchids, or 52 per cent of the species known in India.
- The state boasts of an enriching array of unique and appealing handloom designs from each of its tribes. The products include skirts (gale), shirts (galuk), cotton shawls, side bags, and curtain cloth.
- The state has considerable mineral reserves that offer huge potential. This includes reserves/ resources of coal, dolomite, fuller's earth, graphite and limestone.

Based on the availability of resources, the state has identified thrust areas for industrial development:

- 1 Industries based on agricultural, horticultural and plantation produce.
- 2 Industries based on non-timber forest produce such as bamboo, cane (rattan), medicinal plants/herbs, aromatic grass, tea and coffee.
- 3 Industries based on locally available raw-materials, except timber.
- 4 Textiles (handlooms and power-looms), handicrafts and sericulture.
- 5 Electronics and IT-based enterprises.
- 6 Mineral-based industries (such as ferro-alloys, cement, etc.).
- 7 Facilitation and development of industrial infrastructure, including power and communications, under public private partnership.
- 9 Food processing industries and engineering and allied industries (rolling mill, steel mill, etc.)

ASSAM

- The agro-climatic conditions support cultivation of a wide range of horticultural crops, including plantation crops and various fruits and vegetables, flowers, spices, medicinal and aromatic plants, nut crops and tuber crops.
- Pineapple, banana, cauliflower, broccoli, rose, rice, papaya, sugarcane, turmeric, jute, potato and bougainvillea are among high yielding varieties of horticulture crops in Assam. It also includes traditional fruits like Carambola, Leteku, Paniyal Thekera, Au tenga etc.
- The climate and general environment of Assam is well suited for sericulture. Traditional varieties of silk cultured in the state include Eri, Muga and Mulberry. Assam enjoys global monopoly in terms of Muga silk (also known as golden silk) production. The state accounts for around 95 per cent of global Muga production. Moreover, Assam is the country's major Eri silk producer (accounting for 65 per cent of the country's Eri silk production)
- Apeejay Tea Limited, founded in 1889 in London, is one of the oldest tea companies in the world. Great emphasis is being laid on the development of direct exports. Williamson Tea Assam Limited, founded in 1869, is a family-owned enterprise. 17 tea estates in Assam producing 21 million kilograms of tea for domestic and export consumption.
- Agri-Export Zone for Ginger India's government has sanctioned an agri-export zone for the state for fresh

and processed ginger. The nodal agency for implementing this project is Assam Industrial Development Corporation Limited. The zone is located in eight districts: Kamrup, Nalbari, Barpeta, Darrang, Morigaon, Nagaon, Karbi Anglong and North Cachar (NC) hills of Assam.

Assam Industrial Development Corporation (AIDC) has implemented an Export Promotion Industrial Park (EPIP) at Amingaon, near Guwahati, in the district of Kamrup, at an estimated cost of US\$ 3.0 million. The total area of the park is 68.1 acres. AIDC has constructed 3 industrial sheds and allotted them to 3 industrial units. There are 38 companies in the park, offering direct employment opportunities to 4,000 people & indirect employment opportunities to about 12,000 people

MANIPUR

- Manipur is one of India's largest bamboos producing states and a major contributor to the country's bamboo industry.
- Manipur has the highest number of handicrafts units, as well as the highest number of craft persons comprising skilled and semi-skilled artisans in the entire north-eastern region. Handlooms is the largest cottage industry in Manipur and the state ranks among the top five in terms of the number of looms in the country. Fabrics and shawls of Manipur are in great demand in the national & international market.
- The Ema Bazaar is one of India's largest markets run by women. This market majorly sells handloom and handicraft products such as earthen pots, knives, shawls and puppets, as well as all kinds of dried fish and vegetables.
- Manipur has two varieties of silk: mulberry and vanya. Mulberry includes Bivoltine and Cross Breed, and Vanya includes Eri, Muga and Tussar.

MEGHALAYA

- Meghalaya has a climate that supports agricultural and horticultural activities. Turmeric produced in the state of Meghalaya is considered to be one of the best in the world as it contains 7.5 per cent of curcumin.
- The state produces a substantial quantity of oranges, peaches, pineapples, pears, guavas, plums and bananas of superb variety. It also grows plenty of potatoes, tapioca, bay leaves, ginger, maize and jackfruit.
- Plantation crops like coffee, rubber, black pepper and arecanut are also important products where investment potential exists. Tremendous potential for investment and development exists in food processing.
- Meghalaya has extensive deposits of minerals like coal, limestone, granite, clay, etc. Coal, which is an important input, is available in plenty in all districts and particularly in the southern slopes of the state.

MIZORAM

- Mizoram has identified eight industrial estates, of which five are operational and the remaining are yet to be developed. Thenzawl is to be named "Handloom City" with 821 registered units and turnover of USD 1.68 million, stepping up the impetus for handloom textiles in the state.
- Agro-climatic conditions in Mizoram are suitable for growing a wide range of fruits. Mizoram accounts for about 13.2 per cent of the total fruits produced in the Northeast.
- Anthurium cut flowers are exported to countries such as the UAE, the UK, Japan and Australia.
- The natural resources, climatic conditions and policy incentives in the state support investments in bamboo, sericulture, tourism, agro-products and agro-processing sectors.
- Mizoram accounts for about 12 per cent of the total fruits produced in North East India, and the yield per hectare is on the rise because of adoption of modern horticultural practices.
- All varieties of silk, including Mulberry, Eri, Muga, Tussar and Raw Silk, are commercially produced in the state.

- Mizoram has mineral deposits of shell limestone, siltstone, clay mineral, coal seam, oil and gas. Building-quality stones are exported to Bangladesh.

NAGALAND

- Nagaland has a suitable climate for agricultural and horticultural produce. It supports multiple crops viz., rice, maize, millet, gram, mustard, bean, sugarcane, rubber, tea, banana, pineapple, orange, jackfruit, pear, plum, passion fruit, litchi, mango, lemon, sweet lime, potato, sweet potato, tapioca, tomato, pea, chilly, ginger, garlic, cardamom, etc.
- Nagaland promotes bamboo processing as an enterprise, covering various applications such as food-based, medicinal usage, handicraft, art, tiles and flooring. Nagaland Bamboo Development Agency (NBDA) is the nodal office that coordinates with other offices for all bamboo-related research, development and business applications.
- Agro-climatic conditions in the state are conducive for development of sericulture. Mulberry, Muga, Eri, Oak-Tussar silk are widely cultivated in Nagaland.
- Nagaland has immense potential to produce organic honey and pollen due to its rich biodiversity, traditional knowledge, practice of beekeeping and numerous honeybee species. The state is estimated to have the potential to produce 15,000 MT of honey and 100 MT of wax, which together could generate around US\$ 100 million annually.
- One of the most valuable medicinal plants found in the state, commonly known as Ginseng has tremendous export potential.

SIKKIM

- Vast potential for the commercial production of large cardamom, ginger, medicinal herbs and exportable flowers.
- Varied agro-climatic conditions provide ample opportunity for growing rice, maize, urad, mustard, soybean, mandarin orange, potatoes, peas, large cardamom, ginger and turmeric (spices).
- Mandarin and passion fruit are the two most promising fruits in terms of cultivation and exports.
- The state is also considered to be the Kingdom of Flowers and is an innovator in cultivating Gladiolus.
- Sikkim is the natural home to more than 600 different types of orchids, over 100 primulas and rhododendrons. Several cut flowers and bulbs are supplied by the farmers to areas in Delhi, Kolkata, Kalimpong, Uttarakhand and Bihar. The existing industry is at a nascent stage and has the potential to be developed and promoted towards an export-oriented business.



Annexure I

Anti-Dumping Duty on India		
Imposing Country	Product Description	HS Codes
Argentina	Aluminum radiators, Fans, Flags and paving or tiles, Gloves, made up of 100% knitted textile material, Hand pincers, Polyethylene terephthalate, Spectacles and frames, Straight handsaw blades of high-speed steel, Tape measures	281700, 390760, 392051, 392690, 611610, 690790, 690890, 731010, 820291, 820299, 820320, 841451, 841459, 853690, 900311, 900319, 900410, 900490, 901780
Australia	Zinc coated steel	721049, 722592
Brazil	Butyl acrylate, Clear float flat glass, Glassware for tables, Grinding balls, Iron pipes, New bicycle/bike rubber tyres, PET films, PET Resin, Phenol, Polypropylene Resin, Sacks and bags of jute, Tyres, of a kind used on motor cars	291612, 370130, 390290, 392062, 630510, 701090, 701349, 730300, 731700, 732591, 28112210, 29071100, 31023000, 32041590, 39021020, 39023000, 39076000, 39202019, 40111000, 40115000, 53071010, 53072010, 70052900
Canada	Carbon steel welded pipe 3, Certain carbon steel welded pipe, Certain copper pipe fittings, Certain liquid dielectric transformers, Certain oil country tubular goods, Corrosion-resistant steel sheet, Grinding media	721030, 721049, 721061, 721069, 721220, 721230, 721250, 722591, 722592, 722699, 730429, 730439, 730459, 730629, 730630, 730650, 730690, 732591, 741210, 741220, 850423, 850490, 7223001100, 7223001900, 7223002000
China	7-phenylacetamido-3-chloromethyl-3-cephem-4-carboxylic acidpmethoxybenzyl ester, Bisphenol-A, Meta phenoxy benzaldehyde, Nonyl phenol, Ortho chloro para nitroaniline, Ortho Dichlorobenzene, Perchlorethylene, Phenol, Single-mode optical fibre, Tertiary Butylhydroquinone, Vertical machining centre	290250, 290323, 290711, 290713, 290722, 290723, 290729, 291249, 292142, 293499, 540249, 540269, 845710, 900110, 901890, 90189040
Chinese Taipei	Carbon steel plate, Ceramic tiles,	690410, 690490, 720851, 720852, 720890, 721114, 722540
Colombia	High-pressure decorative laminates, Stainless steel sinks	700521, 3921901000, 7324100000
Egypt	Alloys of iron, Ball point pens, Tyres for buses and lorries	401120, 720221, 720229, 960810

Anti-Dumping Duty on India		
Imposing Country	Product Description	HS Codes
European Union	Acesulfame Potassium, Bicycles, Certain seamless pipes and tubes of iron or steel, Cold-rolled flat steel products, Corrosion resistant steel, Glass fibres, Grain-oriented flat-rolled products of electrical steel, Graphite electrode systems, Oxalic acid, Peroxodisulphates, Solar panels, Stainless steel cold-rolled flat products, Stainless steel seamless pipes and tubes, Stainless steel wires, Tubes and pipes of ductile cast iron	7209, 290516, 290517, 290519, 291711, 293221, 382370, 480990, 481159, 481190, 721041, 721049, 721061, 721069, 721230, 721250, 722592, 722599, 722699, 730411, 730422, 730424, 732510, 732599, 811100, 854511, 854590, 21069092, 21069098, 28334000, 28429080, 29214210, 29349990, 38249097, 54023300, 54023390, 56074911, 56074919, 56075011, 56075019, 64029998, 64032000, 64033000, 64035111, 64035115, 64035119, 64035191, 64035195, 64035199, 64035911, 64035931, 64035935, 64035939, 64035991, 64035995, 64035999, 64039111, 64039113, 64039116, 64039118, 64039191, 64039193, 64039196, 64039198, 64039911, 64039931, 64039933, 64039936, 64039938, 64039991, 64039993, 64039996, 64039998, 64051000, 70195100, 70195900, 72023000, 72091500, 72091690, 72091790, 72091891, 72091899, 72092500, 72092690, 72092790, 72092890, 72112330, 72112380, 72112900, 72193100, 72193210, 72193290, 72193390, 72193410, 72193510, 72193590, 72199080, 72202021, 72202041, 72202049, 72202089, 72209020, 72230019, 72230099, 72251100, 72255080, 72261100, 72269200, 73030010, 73030090, 85013100, 85013200, 85013300, 85013400, 85016120, 85016180, 85016200, 85016300, 85016400, 85414090, 87120030, 87120070
Indonesia	Biaxially Oriented Polyethelene Terephthalate, Hot Rolled Coil, Polyester Staple Fibre, Wheat flour	550320, 720825, 720826, 720827, 720836, 720837, 720838, 720839, 720890, 11010010, 291735000, 550320000, 3920620000, 5503200000, 7208100000, 7208250000, 7208260000, 7208270000, 7208360000, 7208370000, 7208380000, 7208390000, 7208900000, 7219320000, 7219330000, 7219340000, 7219350000, 7219900000, 7220201000, 7220209000, 7220909000
Korea, Republic of	Ethyl acetate, Ferro silico manganese, PET film, Stainless steel bar, Valves for pneumatic transmissions	7222, 72221, 291531, 392062, 392069, 540246, 720230, 848120, 848190, 3905300000, 3905910000, 7202300000, 7222110000, 7222190000, 7222200000, 7222300000, 7222400000

Anti-Dumping Duty on India		
Imposing Country	Product Description	HS Codes
Mexico	Carbon steel tubing with straight longitudinal or helical seams, Coated flat steel products, Epoxidized soya oil, Ferro silico manganese, Seamless carbon steel tubing, Textile polyester filament, textured	151800, 381220, 730419, 730439, 54023301, 72023001, 72103001, 72103099, 72104101, 72104199, 72104901, 72104902, 72104903, 72104904, 72104999, 72106101, 72107001, 72107099, 72122001, 72122002, 72122099, 72123001, 72123002, 72123099, 72124003, 72124099, 72131001, 72132001, 72139101, 72139102, 72139901, 72139999, 72259101, 72259201, 72269901, 72269902, 72271001, 72272001, 72279001, 72279099, 73051101, 73051199, 73051201, 73051299, 73051901, 73051999
Pakistan	Cotton yarn 55.5 and above, Hydrogen Peroxide, Inorganic yellow chrome pigment, Sorbitol 70% Solution, Sulphonic acid	284700, 290544, 340211, 720711, 720712, 720719, 720720, 722410, 722490, 3206201, 52051500, 52052700, 52052800, 52053500, 52054700, 52054800
Peru	Pure biodiesel, Woven fabrics of polyester staple fibres, mixed mainly or solely with viscose rayon staple fibres	382490, 551511, 690890
Russian Federation	Graphite electrodes	730511, 730512, 730519, 854511, 73061009, 7304241002, 7304241003, 7304241004, 7304241009, 7304249001, 7304249009, 7304291001, 7304291002, 7304291003, 7304291004, 7304291009, 7304299001, 7304299009
Saudi Arabia, Kingdom of	Ceramic flags and paving, hearth, floor or wall tiles; whether or not on a backing; finishing ceramics	6907
South Africa	Float and flat glass, Frozen bone-in chicken portions, Polyethylene terephthalate, Unframed glass mirrors, Wire ropes	70320, 390410, 392042, 392112, 700490, 700529, 700991, 731210, 854511, 2071490, 7129090
Thailand	Flat Hot Rolled in Coils and not in Coils	72111, 284700, 720836, 720837, 720838, 720839, 720840, 720851, 720852, 720853, 720854, 720890, 721113, 721114, 721119



Anti-Dumping Duty on India		
Imposing Country	Product Description	HS Codes
Turkey	Articulated link chain and parts thereof, Ball point pens, Bicycle tyres and tubes, Endless transmission belts of trapezoidal cross-section, Fully drawn yarn, Furniture hinge, mounting plate and drawer slide, Metalized yarn, Polyester partially oriented yarn, Polyester synthetic staple fibers, Polyester synthetic staple fibres, Polyester textured yarn, Quilted textiles, Slide Fasteners, Stud-link & welded link chain of iron or steel, Tube or pipe fittings, Unbleached kraft liner paper, Wall type split air conditioners and their indoor / outdoor units, Yarn of man-made or synthetic or artificial staple fibres	5508, 5509, 5510, 5511, 70099, 401032, 401034, 401039, 441872, 480411, 540233, 540243, 540247, 550320, 560500, 581100, 680223, 680293, 730300, 730719, 731581, 731582, 830210, 841510, 841590, 960711, 960719, 390760200000, 392020210019, 401150000000, 401320000000, 550320000000, 701911000000, 701912000000, 701919100000, 701919900000, 701931000000, 701990001000, 701990003000, 731210810000, 731210830000, 731210850000, 731210890000, 731210980000, 830210000011, 830210000019, 830242000000, 830250000000, 960810101000, 960850001000
Ukraine	Kitchen salt extra class	250100, 901831
United States of America	Carbazole Violet Pigment 23, Carbon and alloy steel threaded rod, Certain carbon and alloy steel cut-to-length plate, Certain Circular Welded Carbon Quality Steel Line Pipe, Certain Circular Welded Carbon Steel Pipes and Tubes, Certain Crystalline Silicon Photovoltaic Products, Certain Frozen Fish Fillets, Certain Frozen Warmwater Shrimp, Certain Hot-Rolled Carbon Steel Flat Products, Certain Lined Paper Products, Certain new pneumatic off-the-road tyres, Certain oil country tubular goods, Certain Polyethylene Terephthalate Resin, Certain quartz surface products, Cold-drawn mechanical tubing of carbon and alloy steel, Cold-rolled steel flat products, Commodity Matchbooks, Common alloy aluminium sheet, Corrosion-resistant steel products, Cut-to-Length Carbon Quality Steel Plate, Electrolytic manganese dioxide, Emulsion styrene butadiene rubber, Fine dernier polyester staple fiber, Finished carbon steel flanges, Forged steel fittings,	30429, 30462, 30559, 30617, 71151, 160419, 160521, 160529, 200310, 210390, 250610, 292242, 292249, 293100, 320417, 360500, 370310, 390760, 392020, 392030, 392043, 392049, 392062, 392069, 392190, 392321, 392640, 392690, 400219, 401161, 401162, 401163, 401169, 401192, 401193, 401194, 401199, 460199, 460290, 481022, 481159, 481190, 482010, 482340, 540233, 540490, 550320, 560900, 681011, 681019, 681091, 681099, 681599, 700992, 701690, 720230, 720299, 720810, 720825, 720826, 720827, 720836, 720837, 720838, 720839, 720840, 720851, 720852, 720853, 720854, 720890, 720915, 720916, 720917, 720918, 720925, 720926, 720927, 720928, 720990, 721030, 721041, 721049, 721061, 721069, 721070, 721090, 721113, 721114, 721119, 721123, 721129, 721190, 721220, 721230, 721240, 721250, 721260, 721310, 721410, 721420, 721430, 721491, 721499, 721510, 721550, 721590, 721710, 721720, 721730, 721790, 721891, 721899, 722100, 722211, 722219, 722220, 722230, 722490, 722511, 722519, 722530, 722540, 722550, 722591, 722592, 722599, 722611, 722619, 722620, 722691, 722692, 722699, 722720, 722790, 722820, 722830, 722850, 722860, 722990, 730429, 730431, 730439, 730451, 730459, 730511, 730512, 730519, 730520, 730531, 730539, 730619, 730629, 730630, 730640, 730650, 730661, 730721, 730791, 730792, 730799, 730820, 731100, 731700, 731815, 731819, 732619, 732690, 760611, 760612, 760691, 760692, 820600, 841391, 842490, 843120, 843139, 843149, 843290, 843390, 850161, 850231, 850300, 850720, 870870, 870990, 871690, 940310, 940320, 940350, 940360, 940390, 950590, 28334020, 28334060, 29215920, 32042080, 84821010, 84821050, 84828000, 84829100, 84829910, 84829970, 84832040, 84832080, 84833040,

Anti-Dumping Duty on India					
Imposing Country	Product Description	HS Codes			
United States of America	Forged steel fluid end blocks, Glycine, Helical Spring Lock Washers, High Pressure Steel Cylinders, Hot-rolled steel flat products, Large diameter welded pipe, Light-Walled Rectangular Pipe and Tube, Monosodium glutamate, Persulfates, Plastic decorative ribbon, Polyester textured yarn, Polyethylene Terephthalate Film, Sheet, and Strip, Preserved Mushrooms, Prestressed Concrete Steel Wire Strand, Quartz surface products, Silicomanganese, Stainless steel bar, Stainless steel flanges, Stainless Steel Wire Rod, Steel concrete reinforcing bar, Sulfanilic Acid, Utility scale wind towers, Vertical metal file cabinets, Welded Carbon Steel Standard Pipe, Welded stainless pressure pipe, Wooden Bedroom Furniture,	84833080,	84839020,	84839030,	84839070,
		87085050,	87089950,	2820100000,	2921422800,
		2921427500,	3204176020,	3204176085,	3204179005,
		3204179010,	3204179015,	3204179020,	3204179045,
		3204179050,	3204179055,	3204179086,	7208101500,
		7208103000,	7208106000,	7208253000,	7208256000,
		7208260030,	7208260060,	7208270030,	7208270060,
		7208310000,	7208320000,	7208331000,	7208335000,
		7208360030,	7208360060,	7208370030,	7208370060,
		7208380015,	7208380030,	7208380090,	7208390015,
		7208390030,	7208390090,	7208403030,	7208403060,
		7208406030,	7208406060,	7208410000,	7208420000,
		7208430000,	7208510030,	7208510045,	7208510060,
		7208520000,	7208530000,	7208540000,	7208900000,
		7209150000,	7209160030,	7209160060,	7209160090,
		7209170030,	7209170060,	7209170090,	7209181530,
		7209181560,	7209182550,	7209186000,	7209250000,
		7209260000,	7209270000,	7209280000,	7209900000,
		7210310000,	7210390000,	7210410000,	7210490030,
		7210490090,	7210600000,	7210703000,	7210706030,
		7210706060,	7210706090,	7210901000,	7210906000,
		7210909000,	7211110000,	7211120000,	7211130000,
		7211140030,	7211140045,	7211140090,	7211191500,
		7211192000,	7211193000,	7211194500,	7211196000,
		7211197530,	7211197560,	7211197590,	7211210000,
		7211220045,	7211231500,	7211232000,	7211233000,
		7211234500,	7211236030,	7211236060,	7211236085,
		7211292030,	7211292090,	7211294500,	7211296030,
		7211296080,	7211900000,	7212210000,	7212290000,
		7212301030,	7212301090,	7212303000,	7212305000,
		7212401000,	7212405000,	7212500000,	7212600000,
		7215901000,	7215905000,	7216320000,	7216330030,
		7216330060,	7216330090,	7216500000,	7216610000,
		7216690000,	7216910000,	7216990000,	7217121000,
		7217131000,	7217191000,	7217195000,	7217225000,
		7217235000,	7217291000,	7217295000,	7217325000,
		7217335000,	7217391000,	7217395000,	7221000005,
		7221000015,	7221000020,	7221000030,	7221000040,
		7221000045,	7221000060,	7221000075,	7221000080,
		7222110005,	7222110050,	7222190005,	7222190050,
		7222200005,	7222200045,	7222200075,	7222300000,
		7225110000,	7225190000,	7225303050,	7225307000,
		7225403050,	7225407000,	7225506000,	7225507000,
		7225508010,	7225508085,	7225990090,	7226111000,
		7226119030,	7226119060,	7226191000,	7226199000,
		7226915000,	7226917000,	7226918000,	7226925000,
		7226927050,	7226928050,	7226990000,	7228703040,
		7228706000,	7304101020,	7304105020,	7304213000,
		7304216030,			

Anti-Dumping Duty on India							
Imposing Country	Product Description	HS Codes					
United States of America		7304216045,	7304216060,	7304291010,	7304291020,		
		7304291030,	7304291040,	7304291050,	7304291060,		
		7304291080,	7304292010,	7304292020,	7304292030,		
		7304292040,	7304292050,	7304292060,	7304292080,		
		7304293010,	7304293020,	7304293030,	7304293040,		
		7304293050,	7304293060,	7304293080,	7304294010,		
		7304294020,	7304294030,	7304294040,	7304294050,		
		7304294060,	7304294080,	7304295015,	7304295030,		
		7304295045,	7304295060,	7304295075,	7304296015,		
		7304296030,	7304296045,	7304296060,	7304296075,		
		7304316050,	7304390016,	7304390020,	7304390024,		
		7304390028,	7304390032,	7304515005,	7304515060,		
		7304596000,	7304598010,	7304598015,	7304598020,		
		7304598025,	7305202000,	7305204000,	7305206000,		
		7305208000,	7306101010,	7306101013,	7306101014,		
		7306101015,	7306101019,	7306101050,	7306101053,		
		7306101054,	7306101055,	7306101059,	7306105010,		
		7306105013,	7306105014,	7306105015,	7306105019,		
		7306105050,	7306105053,	7306105054,	7306105055,		
		7306105059,	7306201030,	7306201090,	7306202000,		
		7306203000,	7306204000,	7306206010,	7306206050,		
		7306208010,	7306208050,	7306615000,	7306617060,		
			7312103010,	7312103012,	7318210000		
		Viet Nam	Polyester filament yarn	540233, 540246, 540247			
		Source: WTO; Compiled by MVIRDC WTC Mumbai					

Definition

Dumping is defined in the Agreement on Implementation of Article VI of the GATT 1994 (The Anti-Dumping Agreement) as the introduction of a product into the commerce of another country at less than its normal value. Under Article VI of GATT 1994, and the Anti-Dumping Agreement, WTO Members can impose anti-dumping measures, if, after investigation in accordance with the Agreement, a determination is made (a) that dumping is occurring, (b) that the domestic industry producing the like product in the importing country is suffering material injury, and (c) that there is a causal link between the two. In addition to substantive rules governing the determination of dumping, injury, and causal link, the Agreement sets forth detailed procedural rules for the initiation and conduct of investigations, the imposition of measures, and the duration and review of measures.

Source : WTO

Annexure II

Share of India in world exports of agro-commodities						
HS Code	Product Description	2001	2005	2010	2015	2019
'151530	Castor oil and fractions thereof, whether or not refined, but not chemically modified	80%	79%	82%	81%	86%
'091030	Turmeric "curcuma"	65%	68%	71%	71%	64%
'071140	Cucumbers and gherkins provisionally preserved, e.g. by sulphur dioxide gas, in brine, in sulphur ...	24%	48%	39%	47%	50%
'110610	Flour, meal and powder of peas, beans, lentils and the other dried leguminous vegetables of ...	1%	3%	10%	13%	50%
'130232	Mucilages and thickeners, derived from locust beans, locust bean seeds or guar seeds, whether ...	33%	38%	56%	63%	49%
'030739	Mussels "Mytilus spp., Perna spp.", smoked, frozen, dried, salted or in brine, with or without ...	2%	3%	2%	2%	35%
'100630	Semi-milled or wholly milled rice, whether or not polished or glazed	13%	18%	13%	31%	34%
'071220	Dried onions, whole, cut, sliced, broken or in powder, but not further prepared	4%	10%	19%	26%	32%
'130211	Opium	36%	48%	92%	79%	28%
'020421	Fresh or chilled sheep carcasses and half-carcasses (excluding lambs)	7%	8%	9%	36%	28%
'050100	Human hair, unworked, whether or not washed or scoured; waste of human hair	0%	10%	47%	55%	24%

Share of India in world exports of organic chemicals						
HS Code	Product Description	2001	2005	2010	2015	2019
'291431	Phenylacetone "phenylpropan-2-one"	3%	3%	13%	71%	78%
'294200	Separate chemically defined organic compounds, n.e.s.	60%	81%	78%	68%	65%
'293311	Phenazone "antipyrin" and its derivatives	1%	3%	14%	10%	63%
'293332	Piperidine and its salts	4%	0%	7%	2%	53%
'290911	Diethyl ether	0%	2%	15%	19%	46%
'293941	Ephedrine and its salts	24%	59%	55%	46%	45%
'290611	Menthol	29%	49%	39%	26%	43%
'293942	Pseudoephedrine "INN" and its salts	13%	21%	32%	33%	43%
'290950	Ether-phenols, ether-alcohol-phenols and their halogenated, sulphonated, nitrated or nitrosated ...	0%	3%	8%	21%	37%
'292142	Aniline derivatives and their salts	14%	24%	29%	30%	37%
'292221	Aminohydroxynaphthalenesulphonic acids and their salts	40%	29%	19%	32%	34%
'292243	Anthranilic acid and its salts	29%	21%	70%	32%	31%
'291439	Ketones, aromatic, without other oxygen function (excluding phenylacetone [phenylpropan-2-one])	1%	4%	2%	13%	31%

Share of India in world exports of organic chemicals						
HS Code	Product Description	2001	2005	2010	2015	2019
'292145	1-Naphthylamine "alpha-naphthylamine", 2-naphthylamine "beta-naphthylamine" and their derivatives; ...	3%	1%	6%	11%	30%
'292229	Amino-naphthols and other amino-phenols, their ethers and esters; salts thereof (excluding ...	11%	8%	17%	17%	27%
'290930	Aromatic ethers and their halogenated, sulphonated, nitrated or nitrosated derivatives	1%	2%	3%	5%	26%
'294150	Erythromycin and its derivatives; salts thereof	2%	4%	7%	23%	26%
'292111	Methylamine, dimethylamine or trimethylamine and their salts	2%	1%	15%	35%	25%
'291249	Aldehyde-alcohols, aldehyde-ethers, aldehyde-phenols and aldehydes with other oxygen function ...	12%	16%	25%	20%	24%

Share of India in world exports of inorganic chemicals						
HS Code	Product Description	2001	2005	2010	2015	2019
'283190	Dithionites and sulfoxylates (excluding sodium)	7%	12%	19%	47%	38%
'282990	Perchlorates; bromates and perbromates; iodates and periodates (excluding inorganic or organic ...	0%	1%	11%	17%	25%

Share of India in world exports of dyes and pigments						
HS Code	Product Description	2001	2005	2010	2015	2019
'320416	Synthetic organic reactive dyes; preparations based on synthetic organic reactive dyes of a ...	14%	17%	19%	34%	42%
'320412	Synthetic organic acid dyes, whether or not metallised, and synthetic organic mordant dyes; ...	11%	14%	19%	22%	31%
'320414	Direct synthetic organic dyes; preparations based on direct synthetic organic dyes of a kind ...	4%	8%	13%	26%	28%
'320620	Pigments and preparations of a kind used for colouring any material or used as ingredients ...	0%	2%	5%	15%	28%

Share of India in world exports of essential oils						
HS Code	Product Description	2001	2005	2010	2015	2019
'330125	Oils of mints, whether or not terpeneless, incl. concretes and absolutes (excluding those of ...	6%	30%	35%	45%	84%
'330124	Oils of peppermint "Mentha piperita", whether or not terpeneless, incl. concretes and absolutes	13%	21%	25%	28%	40%
'330190	Extracted oleoresins; concentrates of essential oils in fats, fixed oils, waxes and the like, ...	4%	21%	31%	33%	36%
'330741	"Agarbatti" and other odoriferous preparations which operate by burning	30%	26%	33%	26%	27%

Share of India in world exports of textile products						
HS Code	Product Description	2001	2005	2010	2015	2019
'520535	Multiple "folded" or cabled cotton yarn, of uncombed fibres, containing >= 85% cotton by weight ...	67%	32%	7%	43%	85%
'520535	Multiple "folded" or cabled cotton yarn, of uncombed fibres, containing >= 85% cotton by weight ...	67%	32%	7%	43%	85%
'580430	Handmade lace in the piece, in strips or in motifs (excluding fabrics of heading 6002 to 6006)	15%	8%	7%	6%	72%
'630419	Bedspreads of all types of textile materials (excluding knitted or crocheted, bedlinen, quilts ...	32%	41%	49%	71%	71%
'630492	Articles for interior furnishing, of cotton (excluding knitted or crocheted, blankets and travelling ...	74%	73%	62%	64%	69%
'570220	Floor coverings of coconut fibres "coir", woven, whether or not made up	62%	81%	78%	74%	60%
'630240	Table linen, knitted or crocheted	1%	18%	9%	30%	55%
'570390	Carpet tiles of vegetable textile materials or coarse animal hair, tufted "needle punched", ...	6%	8%	17%	45%	53%
'610729	Men's or boys' nightshirts and pyjamas of textile materials, knitted or crocheted (excluding ...	4%	3%	3%	30%	52%
'520533	Multiple "folded" or cabled cotton yarn, of uncombed fibres, containing >= 85% cotton by weight ...	1%	4%	17%	57%	52%
'520523	Single cotton yarn, of combed fibres, containing >= 85% cotton by weight and with a linear ...	8%	8%	50%	47%	50%
'530810	Coconut "coir" yarn	49%	66%	51%	68%	49%
'570239	Carpets and other floor coverings, of vegetable textile materials or coarse animal hair, woven, ...	29%	47%	14%	11%	48%
'520547	Multiple "folded" or cabled cotton yarn, of combed fibres, containing >= 85% cotton by weight ...	5%	13%	35%	44%	47%
'551329	Woven fabrics containing predominantly, but < 85% synthetic staple fibres by weight, mixed ...	6%	16%	7%	37%	45%

Share of India in world exports of textile products						
HS Code	Product Description	2001	2005	2010	2015	2019
'630510	Sacks and bags, for the packing of goods, of jute or other textile bast fibres of heading 5303	28%	38%	27%	28%	43%
'581010	Embroidery on a textile fabric ground without visible ground, in the piece, in strips or in ...	1%	2%	2%	24%	43%
'570232	Carpets and other floor coverings, of man-made textile materials, woven, not tufted or flocked, ...	1%	4%	10%	28%	42%
'531010	Woven fabrics of jute or of other textile bast fibres of heading 5303, unbleached	40%	50%	65%	54%	42%
'520521	Single cotton yarn, of combed fibres, containing \geq 85% cotton by weight and with a linear ...	70%	73%	77%	65%	42%
'570231	Carpets and other floor coverings, of wool or fine animal hair, woven, not tufted or flocked, ...	40%	47%	27%	33%	41%
'621490	Shawls, scarves, mufflers, mantillas, veils and similar articles of textile materials (excluding ...	31%	33%	38%	48%	40%
'520524	Single cotton yarn, of combed fibres, containing \geq 85% cotton by weight and with a linear ...	7%	3%	29%	53%	40%
'610719	Men's or boys' underpants and briefs of other textile materials, knitted or crocheted (excluding ...	1%	2%	9%	17%	38%
'520522	Single cotton yarn, of combed fibres, containing \geq 85% cotton by weight and with a linear ...	4%	6%	21%	32%	38%
'540262	Multiple "folded" or cabled filament yarn of polyester, incl. monofilament of $<$ 67 decitex ...	2%	6%	12%	31%	38%
'570249	Carpets and other floor coverings, of vegetable textile materials or coarse animal hair, woven, ...	13%	16%	9%	27%	37%
'610839	Women's or girls' nightdresses and pyjamas of textile materials, knitted or crocheted (excluding ...	2%	1%	3%	19%	37%
'520811	Plain woven fabrics of cotton, containing \geq 85% cotton by weight and weighing \leq 100 g/m ² , ...	35%	29%	10%	21%	36%
'540784	Woven fabrics of yarn containing predominantly, but $<$ 85% synthetic filament by weight, incl. ...	9%	14%	28%	18%	35%
'521215	Woven fabrics of cotton, containing predominantly, but $<$ 85% cotton by weight, other than those ...	16%	12%	14%	35%	35%
'520831	Plain woven fabrics of cotton, containing \geq 85% cotton by weight and weighing \leq 100 g/m ² , ...	29%	19%	20%	21%	34%
'581099	Embroidery of materials other than cotton or man-made fibres, on a textile fabric base, in ...	21%	11%	17%	27%	34%
'550959	Yarn containing predominantly, but $<$ 85% polyester staple fibres by weight, other than that ...	7%	7%	19%	24%	34%
'540774	Woven fabrics of yarn containing \geq 85% synthetic filament by weight, incl. monofilament of ...	1%	4%	14%	34%	32%
'520546	Multiple "folded" or cabled cotton yarn, of combed fibres, containing \geq 85% cotton by weight ...	11%	5%	36%	39%	31%



Share of India in world exports of textile products						
HS Code	Product Description	2001	2005	2010	2015	2019
'520543	Multiple "folded" or cabled cotton yarn, of combed fibres, containing >= 85% cotton by weight ...	8%	4%	9%	19%	31%
'570190	Carpets and other textile floor coverings, of textile materials, knotted, whether or not made ...	4%	14%	13%	21%	31%
'520526	Single cotton yarn, of combed fibres, containing >= 85% cotton by weight and with a linear ...	3%	33%	35%	47%	31%
'611190	Babies' garments and clothing accessories of textile materials, knitted or crocheted (excluding ...	1%	2%	10%	18%	31%
'570110	Carpets and other textile floor coverings, of wool or fine animal hair, knotted, whether or ...	11%	16%	25%	30%	31%
'630532	Flexible intermediate bulk containers, for the packing of goods, of synthetic or man-made textile ...	0%	0%	10%	24%	29%
'570210	Kelem, Schumacks, Karamanie and similar hand-woven rugs, whether or not made up	9%	8%	11%	29%	29%
'551030	Yarn containing predominantly, but < 85% artificial staple fibres by weight, mixed principally ...	1%	3%	16%	18%	28%
'570310	Carpets and other floor coverings, of wool or fine animal hair, tufted "needle punched", whether ...	10%	15%	29%	35%	28%
'520548	Multiple "folded" or cabled cotton yarn, of combed fibres, containing >= 85% cotton by weight ...	3%	21%	16%	22%	27%
'520527	Single cotton yarn, of combed fibres, containing >= 85% cotton by weight and with a linear ...	4%	13%	28%	47%	26%
'630520	Sacks and bags, for the packing of goods, of cotton	19%	19%	16%	24%	26%
'520911	Plain woven fabrics of cotton, containing >= 85% cotton by weight and weighing > 200 g/m ² , ...	18%	21%	13%	10%	24%
'570299	Carpets and other floor coverings, of vegetable textile materials or coarse animal hair, woven, ...	4%	6%	2%	23%	24%
'540720	Woven fabrics of strip or the like, of synthetic filament, incl. monofilament of >= 67 decitex ...	0%	1%	6%	12%	24%
'550951	Yarn containing predominantly, but < 85% polyester staple fibres by weight, mixed principally ...	25%	22%	31%	25%	24%

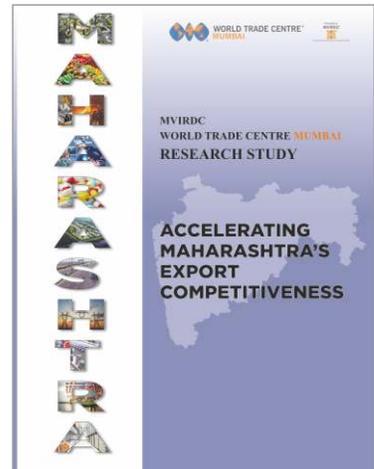
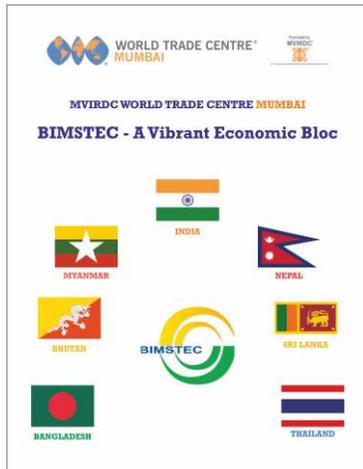
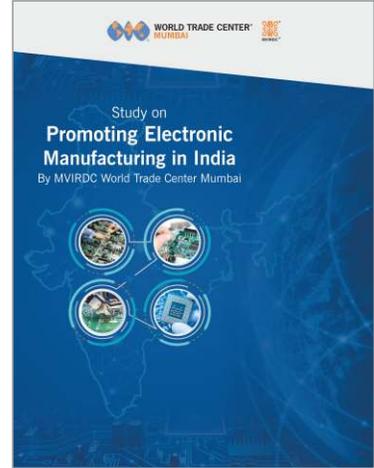
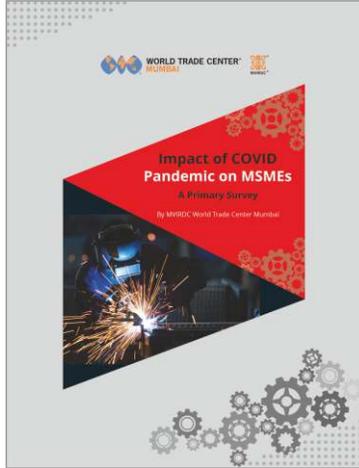
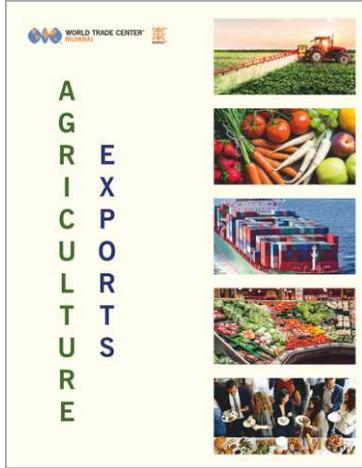
Share of India in world exports of iron and steel products						
HS Code	Product Description	2001	2005	2010	2015	2019
'720719	Semi-finished products of iron or non-alloy steel containing, by weight, < 0,25% of carbon, ...	1%	10%	20%	21%	39%
'732591	Grinding balls and similar articles for mills, cast (excluding such articles of non-malleable ...	3%	9%	18%	30%	36%
'761410	Stranded wire, cables, plaited bands and the like, of aluminium, with steel core (excluding ...	8%	3%	4%	15%	25%

Share of India in world exports of machineries and equipments						
HS Code	Product Description	2001	2005	2010	2015	2019
'840610	Steam and other vapour turbines for marine propulsion	0%	5%	23%	14%	63%
'840211	Watertube boilers with a steam production > 45 t/hour	1%	1%	6%	9%	54%
'844629	Hand looms for weaving fabrics of a width > 30 cm, shuttle type	1%	1%	2%	32%	54%

Share of India in world exports of ships, boats and floating structures						
HS Code	Product Description	2001	2005	2010	2015	2019
'890510	Dredgers	0%	21%	4%	14%	32%
'890590	Light-vessels, fire-floats, floating cranes and other vessels, the navigability of which is ...	0%	6%	11%	6%	29%



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