



## A STUDY ON GREEN GOODS TRADE IN INDIA

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### **Abstract**

*Green goods are environmentally friendly goods being traded by India with other countries around the world. These goods offer least pollution with due concern to the nature. Key components, solar panels, electric vehicles, which earn more forex are traded. The major focus areas include waste management, green transport and sustainable agriculture. In 2004 the export of green goods were 4.5 percent comprising of solar panels and electronic vehicles. India remains as net importer of green goods with key challenges on reliance of imports from China. Even though India's share in green goods trade has increased from 2017 to 2024, it is still less than one percent. This paper states about the trends in green goods export. Stating the challenges present in manufacturing and its trade, this paper, calls for accelerated efforts to boost the exports. This paper uses secondary sources of data gathered from various trade policy research reports. Government measures together with offering many incentives and subsidies, removal of high tariff on raw materials with technology adoption will add more impetus to this green goods sector to make it as a prominent and exorbitant foreign exchange earner in future.*

**Key Words:** *Environment friendly forex tariff, Technology subsidies.*

### **Introduction**

Green goods are those goods which are environmentally friendly in nature. The importance of green goods comes in the context with the presence of environmental degradation. Pollution comprising of air, water and solid waste, which when not curtailed, serves as a threat to the mankind. Global warming, rising in sea levels due to melting of ice and erratic climatic conditions makes life in earth miserable. Green goods manufacture provides solutions to the above stated environmental problems saving living beings. Due to least pollution emission levels and concern for the nature, these goods are widely sought after for manufacturing. The Electric bikes, cars production rule the day. Sustainable agricultural practices together with advent of solar panels have highly revolutionized the economy. The production and trade aspects have highly favoured the economy to earn more forex. The export of environmental goods increased from 2.9 billion in 2015 to 8.5 billion U. S dollars in 2024. However India's share in trade of green goods is relatively small. According to the WTO estimate this has increased from 0.5 percent in 2015 to 0.8 percent in 2020. Yet its share in global green goods trade is less than 1 percent by mid of 2025. Comparing globally China has the share of 12.2 percent. New regulations such as Carbon Border Adjustment Mechanism make many companies to adopt environmental concerns by producing cleaner methods to remain competitive while trading in European market. In Asia, India ranks second in the manufacturing of solar pv thereby exporting solar modules. Rapid economic growth is witnessed in the year 2025 as the exports have more than doubled when compared to the past decade. The key items of exports include textiles which are eco-friendly, components, motor parts and textiles, solar modules and equipment. Indian green goods are demanded by countries like Europe, North America and South East Asia. India imports green technologies from China, United States and Germany. The market for waste water management is valued at 11 billion dollars and is expected to grow to 18 billion dollars by 2026 according to international trade administration. India's commitment to sustainable development and its target of achieving zero



emissions by 2030 have added more emphasis on green trade. The country has an ambitious target of capturing 10 percent of the global green hydrogen market thereby becoming a global hub according to Times of India. However, the growth of green goods export depends on domestic manufacturing capabilities and dynamics of global trade.

### **Background**

Green goods are those that do not pollute the environment. The manufacturing of such goods is the dire need of the hour as there is pollutant due to dumping of waste everywhere. The importance of using renewable sources of energy like solar and wind are advocated. Rising demand for environmentally friendly products has boosted trade and necessitated increased production.

### **Review of Literature**

Green trade facilitates the spread of clean technologies thereby enabling a shift from pollution. Digital technology facilitates green product exports thereby reducing the need for imports. The literature states triple dividend with respect to technology, environment concern and growth. The literature defines green goods which includes environmental goods and pollution control. The role of green consumers is the drive for producing non-polluting products.

### **Statement of the problem**

Even though the manufacture of green goods is encouraged, the production of it suffers from lack of finance, lack of enhanced awareness among people of all green goods and its benefits, lack of infrastructure, and high dependence on imports.

### **Objectives**

1. This paper states about the trends in green goods export.
2. To study the challenges present in the manufacturing of green goods and its trade.
3. To portray accelerated efforts for boosting green goods export

### **Methodology**

This paper uses secondary sources of data gathered from various trade policy research reports.

**Type of study** Descriptive and analytical.

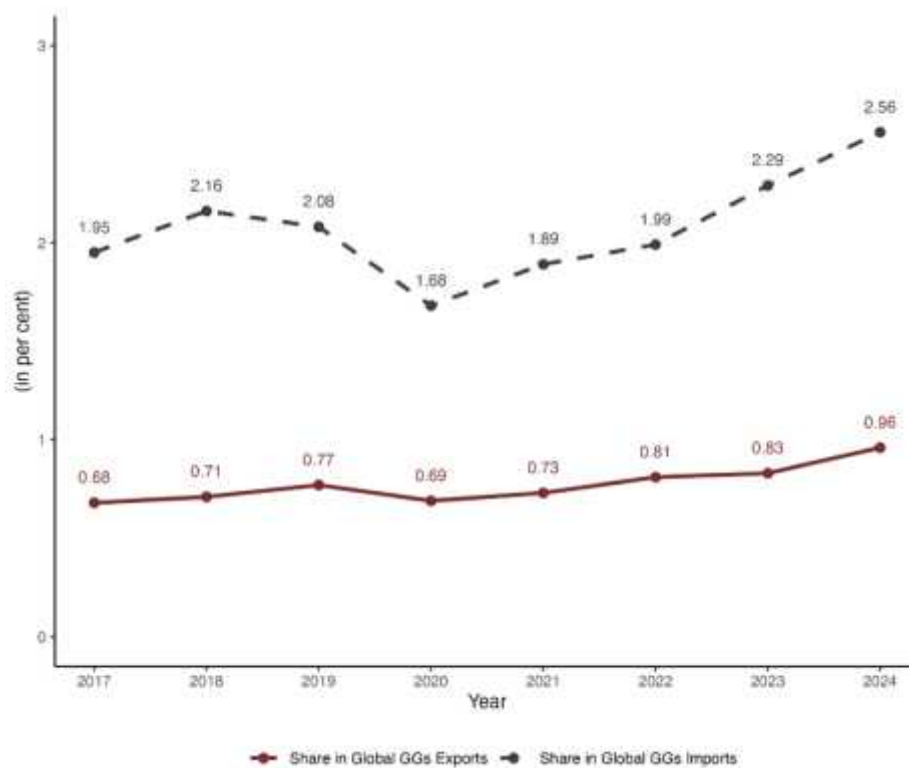
**Data sources** secondary data reports, journals, policy documents, export data.

**Tools used** Trend analysis and qualitative assessment.



## Data Analysis

### India's Share of Global Trade in Green Goods (2017-2024) (in per cent)



Source. World integrated Trade Solutions (WCTS)

From the figure we infer the green goods trade increased from 0.66 in the year 2017 to 0.71 in 2018 to 0.77 in 2019 to 0.69 in 2020 to 0.73 in 2021 to 0.81 in 2022 to 0.83 in 2023 to 0.96 in 2024. There is an increasing trend in the matter of green goods export.

India also imports which is shown by 1.95 in 2017 to 2.16 in 2018 to 2.08 in 2019 to 1.68 in 2020 slightly declining to 1.89 in 2021 to 1.99 in 2022 to 2.29 in 2023 and 2.56 in 2024.

## Rise of Sustainable Materials

**India's export of sustainable materials organic cotton, bamboo, and bio degradable products are increasing.**

### Increasing policy support

The Government is stressing on Atma Nirbhar Bharat for boosting the manufacturing of green goods. A performance linked scheme is also initiated.

The Government has lowered tariffs on green goods, some of them may be Solar panels, power plant 5 percent Batteries 18 percent of GST Lithium battery cell machinery Sodium antimonate used in manufacturing of solar glass 0% customs duty.

1. The National solar mission.
2. Electric vehicles policy.
3. Waste management policy.
4. Sustainable Agriculture policy.



5. Make in India.
6. Renewable energy target.
7. These initiatives help to support manufacturing and growth of green goods trade.

### **Shift towards Circular Economy**

Industries are adopting waste management practices of reduce, reuse and recycle to reduce the environmental impact and to enhance the global competitiveness.

### **Challenges in Manufacturing of Green Goods**

#### **High Initial Investment Costs**

According to Electronics Era innovations and challenges in green manufacturing in Indian market, transitioning to green manufacturing requires technology, infrastructure and skilled labour which is challenging especially for MSMEs.

#### **Regulatory and Policy Barriers**

Complex regulations.

Lack of incentives.

Multiple compliance requirements.

Indias manufacturing MSMEs face over 1450 regulatory obligation annually across labour environment taxation. Corporate laws, making compliance complex and time consuming. The average compliance cost of manufacturing MSME ranges from 13 lakh to Rs 17 lakh per year which has impact on their growth and profitability. This affects their production. According to Drishti IAS 23 SEP 2025.

#### **Infrastructure constraints**

1. Transport and logistics problem.
2. Power supply and management of waste.
3. These factors hinder efficient green production.

#### **Lack of awareness and skills and Trade barriers**

1. Shortage of skilled work force.
2. Lack of knowledge about green technologies.
3. These restrict the adoption of sustainable practices.
4. Certification requirements.

**Competition:** Competition from Germany, United states and China who not only developed technologies but have created innovative ecosystems poses a considerable threat

### **Discussion**

1. This paper reveals that India has strong potential in green goods trade Due to
2. Growing renewable energy sector.
3. Availability of raw materials.
4. Growth of MSME.
5. Government initiatives.

However structural in efficiencies, trade barriers, technology. Limit growth .It is high time to integrate industrial competitiveness with sustainability to boost green goods trade. To create favourable environment eco systems for boosting green goods export.



### **Suggestion for Accelerating Green Goods Export**

1. To strengthen the technology and domestic manufacturing of green goods.
2. To establish linkages for marketing.
3. To produce items using indigenous technology.
4. To manufacture advanced chemistry batteries used in electric vehicles, green hydrogen, key high tech components wind turbines, and wind turbines without dependency on imports is advocated.
5. To reduce barriers in trade.
6. To develop infrastructure.
7. To provide liberal credit facilities to industries manufacturing green goods.
8. To enhance the awareness among people about the superiority of using green goods on the environment.
9. Enhance renewable energy capacity.
10. Develop green industrial park.
11. Improve logistics and transport systems.
12. To provide skill development programs.
13. Provide industry academicians collaboration.
14. Subsidise green technology adoption.
15. Strengthen global value chains.
16. Subsidise green technology adoption.
17. Provide more loans to support startups in the green goods sector.

### **Conclusion**

As the trade in green goods plays an important role to achieve sustainable development. Each and every economy should concentrate more on producing and trading of green goods. This helps to earn forex. As production of every good creates bads like waste, it is the duty of every producer to be responsible in its eradication or minimisation to preserve the environment. Due concern should be given for manufacturing with subsidies and tax incentives with a view to create infrastructure as a way forward to encourage the producers and new startups in this field. As green goods trade in India is in transformative stage driven by global environmental concerns and domestic policy initiatives, due care and support should be given. The export trends are positive but challenges need to be addressed in priority. With suitable strategic interventions India can become as the global leader in export of green goods and be as a significant contributor of global sustainability goals.

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