Colossal A23a Iceberg Stuck

Source: HT

The world's largest iceberg, **Colossal A23a** (3,672 sq. km), is stuck about 70 km from **South Georgia Island**, likely avoiding ecological harm to its wildlife habitats.

- A23a **broke** from the **Filchner Ice Shelf (Antarctica) in 1986** and remained stuck in the **Weddell Sea** for over 30 years and started **drifting north in 2020 towards** South Georgia Island.
- **Nutrients released** from the iceberg's grounding and melting **may boost marine food availability**, supporting the **regional ecosystem.**
- **South Georgia Island**: The **UK** administers South Georgia (also **claimed by Argentina**) as a **British overseas territory.**
- **Icebergs: Icebergs** are **large floating masses of freshwater ice** that break off (calve) from **glaciers or ice shelves** and drift in oceans or seas.
    - Since ice is **less dense than water**, **90%** of an iceberg stays submerged, with only the top visible.

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Read More: Iceberg A68a

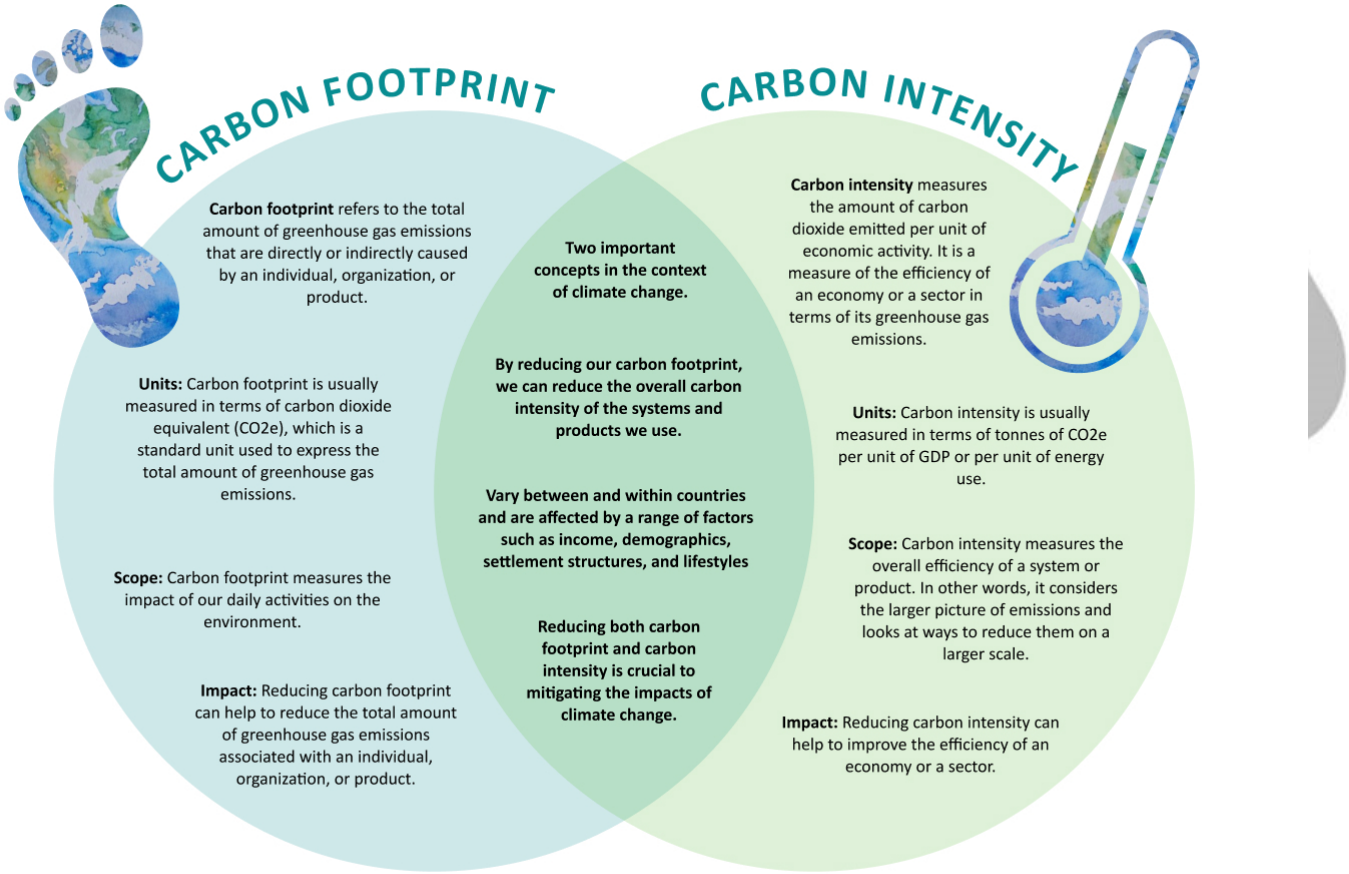
Carbon Intensity

Source: TH

Carbon intensity measures the amount of **carbon dioxide (CO_2) emitted per unit of output in a**

specific sector or economy. It helps track progress in **reducing emissions** while accounting for economic growth or production levels.

- For example, the carbon intensity of the steel sector can be measured as the number of tonnes produced per tonne of CO_2 emitted.
- **National Carbon Intensity:** A country's **carbon intensity** is measured by **dividing Gross domestic product (GDP) growth per capita by CO_2 emissions.**
- **Significance for India & Climate Goals:** Carbon intensity plays a crucial role in assessing climate commitments under the **Paris Agreement (2015)** and reducing **Emissions Intensity of its GDP by 45% by 2030,** from 2005 level.
    - Carbon intensity supports sustainable economic growth while lowering environmental impact.



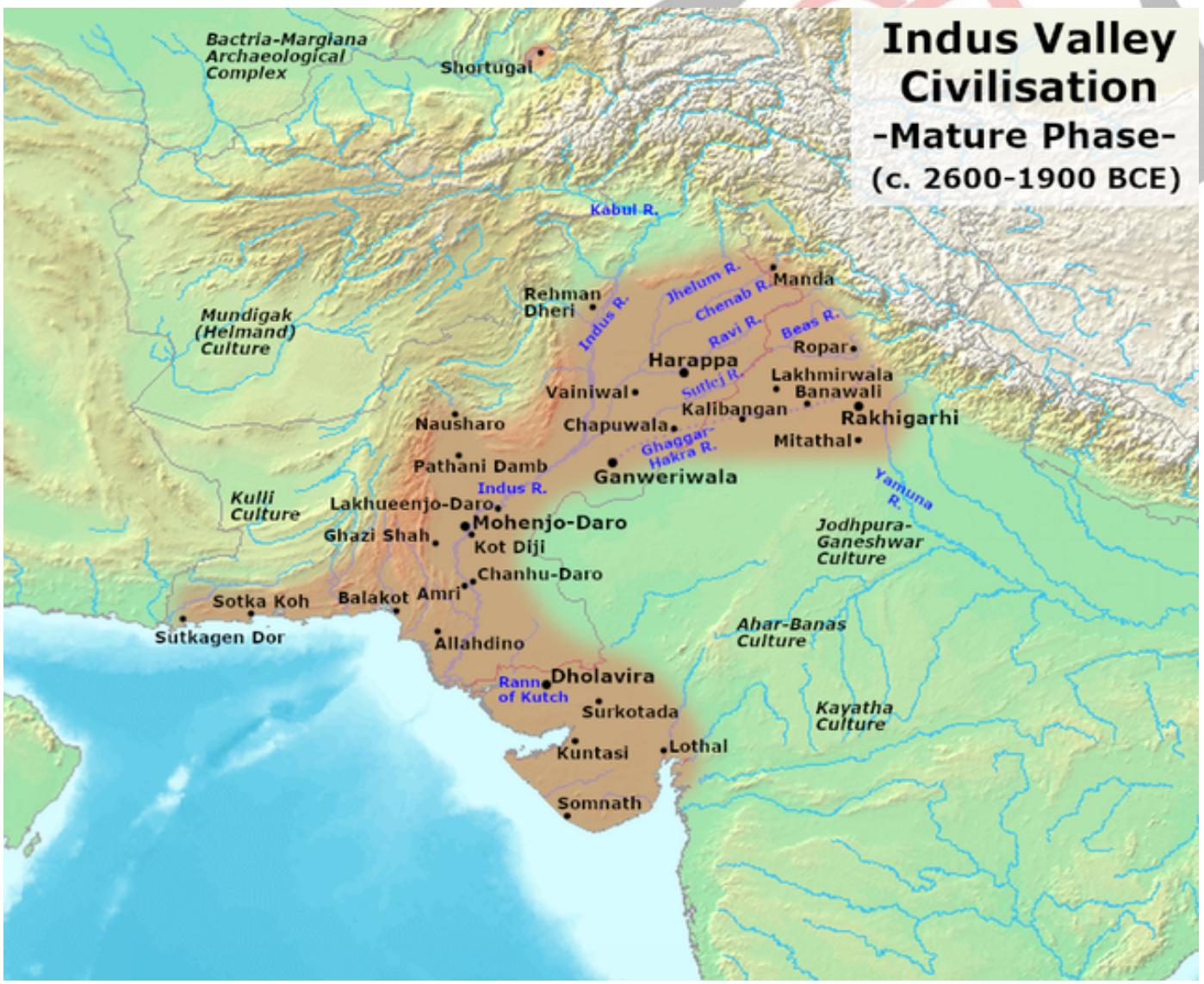
Read more: India's Carbon Market: A Green Leap Forward

Dholavira

Source: PIB

The **President of India** visited **Dholavira,** appreciating the technological advancements of the **Harappan civilization.**

- **Harappan (Indus Valley) Civilization:**
  - It was an **urban civilization** that flourished along the **Indus River** from around **3300-1300 BCE.** It was **discovered** by **John Marshall** in the 1920s.
  - **Major sites of the Harappan civilization** include **Harappa, Mohenjo-daro, Banawali, Dholavira, Lothal, and Ropar.**
- **Dholavira:**
  - It is located in **Kutch (arid island of Khadir), Gujarat,** is a significant archaeological site inhabited from **3000 BCE to 1800 BCE.**
    - It was discovered by **Jagatpati Joshi** in **1968.**
  - It is the **fifth-largest site of the Indus Valley Civilization** and lies between two seasonal streams, **Mansar** and **Manhar**.
  - Archaeological findings include **terracotta pottery, seals, ornaments**, and evidence of **metallurgy.** It was a **trade hub for copper, jewelry, and timber,** with inscriptions in Indus Valley script.
    - **No human remains** have been found at the site.
  - Dholavira features a **walled city with a fortified castle**, **middle and lower towns,** and a **cemetery**.
    - Its **advanced water system** includes **16 reservoirs and step wells**.
  - It was declared a **UNESCO World Heritage Site** in **2021.**



Read More: **India's 40th World Heritage Site: Dholavira**

India’s Textile Industry

For Prelims: Man-made fibres, Foreign Direct Investment, PM MITRA Parks, Quality Control Orders

For Mains: India’s Textile Industry, Potential and Challenges, Growth & Development

Source: IE

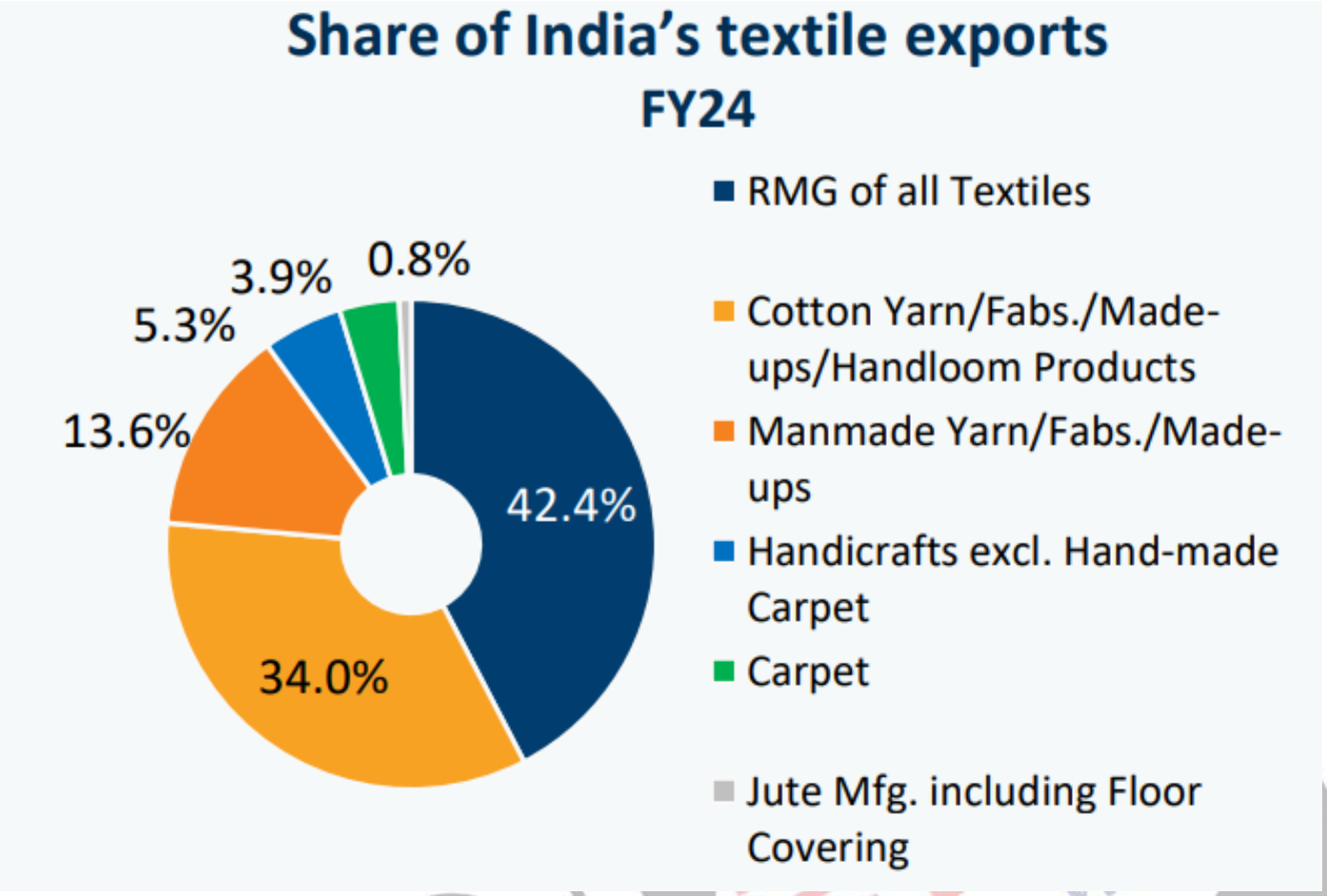
Why in News?

India’s **textile industry** has the potential to become a global leader, driven by a growing domestic market, and rising global interest.

- However, key issues such as **high production costs, fragmented supply chains,** and sustainability challenges have slowed growth and exports.

What are the Key Facts About India’s Textile Industry?

- **Economic Contribution:** The textile industry contributes **2.3% to India's Gross Domestic Product (GDP),** projected to reach 5% by 2030.
  - As of FY24, it accounts for **13% of industrial production, 12% of exports,** and employs **4.5 crore workers**.
  - In FY24 exports stood at USD 35.9 billion, with key markets in the US, EU, and UAE.
- **Position in Global Textile Trade:** India has the **2nd largest textile manufacturing capacity** globally and ranks as the **6th largest exporter of textiles and apparel in 2023** (accounting for 3.9% of global trade).
  - **India is the 2nd largest producer of cotton in the world** (23.83% of world cotton production), with production expected to reach **7.2 million tonnes by 2030**.
  - India is the **largest producer of jute in the world, and 2nd largest producer of man-made fibres (MMF)**, including polyester, viscose, nylon, and acrylic.



- **Market Growth Projections: India’s textile and apparel market** is projected to reach **USD 350 billion by 2030**.
- **Government Initiatives: PM Mega Integrated Textile Region and Apparel (MITRA) Parks** , **Production Linked Incentive (PLI) Scheme for Textiles**, **National Technical Textile Mission (NTTM)**.
    - **100% Foreign Direct Investment (FDI) allowed in textiles under the automatic route** to attract foreign investment.

What are the Key Challenges Facing India’s Textile Industry?

- **Lack of Trade Agreements:** Countries like **Vietnam and China** benefit from **Free Trade Agreements (FTAs)** with major markets, making its exports more competitive.
    - India lacks similar FTAs in key textile-consuming regions like the US.
- **Stagnant Growth and Declining Exports:** Textile sector contracted by 1.8% annually (FY20-FY24), while **apparel sector shrank by 8.2% per year.**
    - Apparel exports fell from **USD 15.5 billion in FY20 to USD 14.5 billion in FY24.**
- **Expensive Raw Materials**: Government-imposed **Quality Control Orders (QCOs)** restrict imports of polyester and viscose, forcing domestic yarn makers to rely on costlier local alternatives.
    - **Polyester fibre in India is 33-36% costlier than in China**, while viscose fibre is 14-16% more expensive.
- **Low Export Competitiveness:** India's textile exports are **costlier than China and Vietnam** due to higher labor cost.
    - **Unlike vertically integrated supply chains** (company takes ownership of suppliers) in China, India's fragmented supply chain spread across states and complex customs **increase logistics costs and reduce competitiveness.**
    - Additionally, Bangladesh, as a **Least Developed Country (LDC),** enjoys **duty-free exports**, gaining a **cost advantage over India** in many markets due to preferential trade

policies.

- **Sustainability Pressures:** Global brands are enforcing strict environmental norms, requiring higher **renewable energy use, waste recycling, and traceability of raw materials.**
    - The **European Union** has implemented several regulations (2021-2024) covering the fashion industry, impacting nearly **20% of India's textile exports.**

Note: The **global textile and garment sector** contributes **6-8% of global carbon emissions** (~1.7 billion tonnes/year).

- Textile production causes **20% of global water pollution** from dyeing and finishing and the textile sector was the **3rd largest source of water degradation and land use in 2020.**

Way Forward

- **Strengthening Supply Chains**: Develop **Vertically Integrated Textile Parks** that cover the **entire production cycle from fibre to finished apparel**, reducing **logistical and production costs**.
    - Reassess **QCOs on polyester and viscose fibres** to allow controlled imports and **lower domestic costs**.
    - Develop **"fibre-to-fashion" hubs** to reduce **fragmentation and logistics costs**.
- **Leveraging Labour Pools:** More **PM MITRA parks** should be established in **Uttar Pradesh, Bihar, and Madhya Pradesh**, where job demand is high.
    - Housing near factories, similar to China's model, can **increase productivity**, and improve take-home salaries and reduce **attrition rate.**
- **Policy Reforms:** Secure preferential trade agreements with **EU, US, and key markets** to improve competitiveness.
- **Boosting MMF**: Encourage **higher domestic MMF consumption** by offering **incentives for MMF-based textile production**.
- **Sustainability:** Provide financial incentives to MSMEs for **shifting to sustainable manufacturing** and **renewable energy adoption**.
    - **Fast fashion waste is projected to reach 148 million tonnes by 2030,** driving increased demand for recycled textiles, a market where India has significant potential, strengthening waste management infrastructure will be key to sustainable growth.

Drishti Mains Question:

How does the textile industry contribute to India's economic growth, and what measures are needed to make it globally competitive?

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims

Q. Consider the following statements: (2020)

1. The value of Indo-Sri Lanka trade has consistently increased in the last decade.
2. "Textile and textile articles" constitute an important item of trade between India and Bangladesh.
3. In the last five years, Nepal has been the largest trading partner of India in South Asia.

Which of the statements given above is/are correct?

(a) 1 and 2 only
(b) 2 only
(c) 3 only

(d) 1, 2 and 3

Ans: (b)

Mains

Q. Analyse the factors for highly decentralized cotton textile industry in India. **(2013)**
