

National Technical Textiles Mission

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National Technical Textiles Mission: A Five-Year Milestone

Context

The **National Technical Textiles Mission (NTTM)** was launched in **2020** to promote **research, exports, and skill development** in technical textiles. Over five years, it has played a key role in making India a global leader in this sector.

Why is it important?

- **GS-3 (Economy, Industry, Employment, Make in India, R&D).**
- **Key government initiative** for industrial growth and self-reliance.

What Are Technical Textiles?

Definition & Features

- **Function-Oriented Fabrics** - Designed for **specific uses** rather than aesthetics.
- **Enhanced Properties** - Includes **UV protection, flame resistance, chemical resistance, and moisture management**.
- **Advanced Materials** - Uses fibers like **Nomex, Kevlar, Spandex, and Twaron**.

Key Applications

- **Automotive** - Airbags, seat belts.
- **Construction** - Reinforced concrete, waterproof membranes.
- **Healthcare** - PPE kits, bandages.

- **Defense & Security** – Bulletproof vests, parachutes.
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India's Textile Industry: Growth & Importance

- **6th largest textile exporter globally**, with a **3.9% global share**.
 - Contributes **~2% to India's GDP**.
 - Projected to reach **\$350 billion by 2030**, creating **3.5 crore jobs**.
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National Technical Textiles Mission (NTTM)

Overview

- **Launched: 2020 | Duration: 2020-21 to 2025-26 | Budget: ₹1,480 crore.**
- **Objective:** Position India as a **global leader in technical textiles**.

Key Focus Areas

- **Research & Innovation** – Develops **new materials & processes**.
 - **Market Development** – Promotes **domestic & international adoption**.
 - **Export Promotion** – Expands **India's global market presence**.
 - **Skill Development** – Aims to **train 50,000 individuals**.
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How NTTM is Transforming India's Textile Sector

1. GIST 2.0 (Grant for Internship Support in Technical Textiles)

- Provides **hands-on industry training** for students & professionals.

2. GREAT (Grant for Research & Entrepreneurship in Technical Textiles)

- **Launched in 2023**, helps startups **convert prototypes into commercial products**.

3. Technotex 2024

- **Held as part of Bharat Tex 2024**, showcased **India's expertise** in technical textiles.

Challenges & Way Forward

Challenges

- **Low awareness** and **limited domestic adoption**.
- **Import dependency** for specialized fibers.
- **Need for skilled workforce** in technical textiles.

Way Forward

- **Boost R&D and indigenous production**.
- **Expand industry-academia collaboration** for skill development.
- **Strengthen export strategy** to enhance global competitiveness.

Conclusion

With **NTTM, GIST 2.0, and GREAT**, India is rapidly advancing in **technical textiles**. Continued **innovation, market expansion, and skill development** will drive **economic growth and global leadership** in this sector.