NATIONAL TECHNICAL TEXTILES MISSION

800. SHRI NARAYANA KORAGAPPA:

Will the Minister of TEXTILES be pleased to state:

(a) the measures undertaken by Government to promote research, innovation, and indigenous manufacturing under the National Technical Textiles Mission (NTTM);

(b) the number and nature of R&D and strategic research projects approved in sectors such as speciality fibres, geotextiles, agro-textiles, and smart textiles, along with their total cost;

(c) whether the Mission has contributed to reducing import dependence and enhancing the export potential of technical textile products; and

(d) the roadmap adopted by Government to position India as a global hub for technical textiles and advanced fibre technologies?

ANSWER

THE MINISTER OF STATE FOR TEXTILES
(SHRI PABITRA MARGHERITA)

(a) & (b): With a view to boost Technical Textiles sector in the country, National Technical Textiles Mission (NTTM) was launched in the year 2020 with a financial outlay of Rs. 1,480 crore. Under Component-I of NTTM, financial support is provided for research & innovation in the field of specialty fibres like Carbon fibre, Aramid fibre, Nylon, Composites etc. as well as in different segments of Technical Textiles such as geo textiles, agro textiles, medical textiles, smart textiles, etc. A total of 168 projects have been approved under NTTM, out of which 79 research projects at a cost of Rs. 247 crore have been approved in the field of Speciality Fibres, Geotextiles, Agro-textiles, and Smart Textiles. Broad nature of these projects are explained in Annexure-I.

(c) & (d): The major objective of research projects sanctioned under NTTM is to create an ecosystem for manufacturing of technical textiles in India and also for improving the domestic market size for reducing dependency on imports besides generation of employment. The Mission focuses on research & innovation and indigenous development of machinery; promoting awareness amongst users; enhancing India's exports of technical textiles; and creating human resources with requisite skills. Further, in order to strengthen the start-up ecosystem of technical textiles in the country, the "Grant for Research and Entrepreneurship across Aspiring Innovators in Technical Textiles (GREAT)" scheme was launched under NTTM to support young entrepreneurs promoting value addition, and local manufacturing in emerging technical textile areas, thereby creating new livelihood and economic opportunities. Alongside innovation, NTTM prioritizes skilling and market access through structured training programmes across all 12 segments of technical textiles, catering to workers, students, professionals, and industry leaders. The Mission also boosts industry engagement through conferences, workshops, Chintan Shivirs, webinars, and outreach activities, helping build a skilled workforce and expanding nationwide adoption of technical textiles.

Broad nature of R&D projects sanctioned in the field of Speciality Fibres, Geotextiles, Agro-textiles and Smart Textiles under National Technical Textiles Mission

Segment	Broad Nature of the Projects
Speciality Fibres	These projects develop advanced fibres and composites carbon, nanofibre, UHMWPE, aramid, glass and natural fibre. The outcomes target high-performance applications in defence, energy storage, healthcare, smart textiles and sustainable materials.
Geotextiles	These projects focus on developing innovative geotextiles, geogrids, and geocomposites using natural fibres, recycled materials, and advanced polymers for pavements, railways, embankments, drainage, erosion control, and landslide mitigation. These emphasise sustainable ground-improvement solutions, performance-enhanced geosynthetic systems, and improved design models for diverse geotechnical conditions.
Agro textiles	These projects develop sustainable agro-textiles from natural fibres and agricultural residues for crop protection, mulching, packaging, and seed preservation. They also include smart and energy-responsive textiles aimed at improving crop productivity and promoting eco-friendly farming.
Smart Textiles	These projects focus on developing advanced smart textiles, including photonic fabrics, conductive fibres, wearable electronics, perovskite solar-textiles, and antenna-integrated materials. They also cover high-performance composites for space applications, gamma-protective clothing, anti-counterfeiting agents, and next-generation piezoelectric/flexoelectric fabrics.

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