

## **MATERIAL ON TECHNICAL TEXTILES**

1. Technical Textiles is a high technology sunrise sector which is steadily gaining ground in India. Technical textiles are functional fabrics that have applications across various industries including automobiles, civil engineering and construction, agriculture, healthcare, industrial safety, personal protection etc. Based on usage, there are 12 technical textile segments; Agrotech, Meditech, Buildtech, Mobiltech, Clothtech, Oekotech, Geotech, Packtech, Hometech, Protech, Indutech and Sportech.

2. Technical Textile products derive their demand from development and industrialization in a country. Given the large scale at which emerging nations are industrialising, the market for technical textiles can only be expected to grow in tandem with industrial growth in different parts of the world. In India Technical Textile sector has registered compounded annual rate of growth of 11% during 11th Five Year Plan and as per the 12<sup>th</sup> Five Year Plan estimates by the sub-group on technical textiles, technical textile market size is expected to grow at CAGR of 20% and reach Rs. 1,58,540 crore by 2016-17 from the market size of Rs 70,151 Crore in 2012-13. Market Size in Financial Year 2015-16 is projected as Rs. 1,31,836 Crore. Technical Textiles provides new opportunity to the Indian textile industry to have long term sustainable future. Despite of achieving high growth rate the per capita consumption of technical textiles in India is 1.7 per kg vis –a vis 10-12 kg in developed countries. Globally, the technical textiles contribute to about 27 percent of textile industry, in some of the western countries its share is even 50 percent while in India it is a meagre 11 percent.

**3. The growth enablers for this sector include:**

**a. Growth of Industry Sectors**

A large number of technical textile products are consumed by different industries, like automotive, healthcare, infrastructure, oil & petroleum, etc. With increase in investments in industry sectors, higher consumption and growing exports, the industrial sector is poised for considerable growth.

**b. Increasing Per Capita Income of Consumer**

While India's per capita income increased by 11.5% from US\$ 969 in 2010-11 to US\$ 1,499 in 2013-14, promising economic growth indicate corresponding trends for income growth. Holistic development will encourage higher discretionary spending and technology development.

**c. Increasing adaptability and acceptance of products**

Growing awareness about the superior functionality of technical textiles will encourage higher consumption of these products.

**d. Government's FDI promotion initiatives**

To facilitate higher integration of technology into manufacturing processes and end-products, Government of India has allowed up to 100% FDI under automatic route for the technical textiles segment. Leading global manufacturers of technical textiles products will thus be able to establish manufacturing units in India, either alone or through partnerships with Indian industries. Several Central and State government agencies are working towards providing the necessary information to potential investors. These efforts have borne fruit, as several international technical textile manufacturers, like Ahlstrom, Johnson & Johnson, Du Pont, Procter & Gamble, 3M, SKAPS, Kimberly Clark, Terram, Maccaferri, Strata Geosystems, have initiated operations in India.

**e. Investment promotion schemes by Government**

Investors establishing technical textile unit in India can avail several benefits from central government schemes:

- Technology Upgradation Fund Scheme (TUFS)
- Scheme for Integrated Textile Parks (SITP)
- Coverage of major machinery for technical textile manufacturing under concessional customs duty list of 5%
- Certain technical textile products are covered under Focus Product Scheme, under which exports of such products carry duty credit scrip equivalent to 2% of FOB value of exports
- Technology Mission on Technical Textiles (TMTT)
  - Focus Incubation Centres (FIC)
  - Scheme for promoting usage of Agro-textiles in India (excluding North East Region)
- Scheme for promoting usage of Agro-textiles in North East Region
- Scheme for promoting usage of Geotechnical textiles in North East Region

Additionally, several states in India also offer incentives and assistance to investors, which can include electricity and stamp duty exemptions, concessions in land registration, and single window clearance facilities for investment project applications.

**f. Scope for import substitution**

While India imports technical textile products, the country demonstrates significant consumption capacity and demand for this technology-intense product segment, and hence lucrative market opportunities for new entrants exist in the Indian technical textile industry.

**g. Scope for introduction of regulatory norms**

Ministry of Textiles is working to institute regulatory norms for technical textile products that align with those of developed nations. Successful implementation of these norms can lead to exponential increase in demand and consumption of technical textiles products in India.

**4. The Scheme details/achievements are given hereunder:**

**A. Scheme for Growth and Development of Technical Textiles (SGDTT)**

SGDTT was launched during the XI<sup>th</sup> Five Year Plan in 2007-08 with a fund outlay of INR 46.60 Crores. The scheme comprised of three main components; Baseline Survey, Awareness Campaigns and Creation of Centres of Excellence (CoE). The scheme completed its tenure in 2010-11.

- **Baseline Survey:** A baseline survey of the technical textile industry in India was conducted to create an accurate data base of statistics and information related to the technical textile industry for all the relevant stakeholders in India. The report can be viewed/ downloaded at [www.technotex.gov.in](http://www.technotex.gov.in).
- **Awareness Campaigns:** More than 60 awareness programmes/seminars/ workshops, in association with Textile Research Associations, COEs and/or Industry Associations (CII, FICCI etc.) were organized across the country.
- **Setting up of four Centres of Excellence (COEs):** Four CoEs have been set up for four thrust segments within the technical textiles industry. The four CoEs are BTRA (Geotech), SASMIRA (Agrotech), NITRA (Protech) & SITRA (Meditech). These CoEs provide infrastructure support to the industry with regards to testing, training, information etc. at a single location for the convenience of the manufacturer of technical textiles and other

relevant stakeholders. Following were the CoEs established under SGDTT:

S. No.	Name of agencies	Segment
i.	<a href="#">The South India Textile Research Association (SITRA), Coimbatore</a>	Meditech
ii.	<a href="#">The Synthetic &amp; Art Silk Mills' Research Association (SASMIRA), Mumbai</a>	Agrotech
iii.	<a href="#">Bombay Textile Research Association (BTRA), Mumbai</a>	Geotech
iv.	<a href="#">Northern India Textile Research Association (NITRA)</a>	Protech

## B. Technology Mission on Technical Textiles (TMTT)

In 2010-11, Ministry of Textiles launched the Technology Mission on Technical Textiles (TMTT) with two mini- missions for a period of five years with a fund outlay of Rs. 200 Crore during December 2010. TMTT Scheme has been extended for another two years from 2015-16 to 2016-17. The details of the missions are as given below:

**Mini-Mission- I:** *The objective of Mini Mission I is standardization, creating common testing facilities with national / international accreditation, indigenous development of prototypes and maintaining a resource centre with I.T. infrastructure. The interventions are:*

- i. **Setting up four additional Centers of Excellence (CoEs):** Other than the four CoEs already established under Scheme for Growth and Development of Technical Textiles (SGDTT), four additional CoEs have been established in the areas of Nonwovens, Composites, Indutech and Sportech to support the manufacturers of technical textiles within these growing segments. The four new Centres of Excellence are:-

S. No.	Name of agencies	Segment
i.	<a href="#">DKTE Society's Textile and Engineering Institute, Ichalkaranji, Kolhapur</a>	Nonwoven
ii.	<a href="#">PSG College of Technology, Coimbatore</a>	Indutech
iii.	<a href="#">Ahmedabad Textile Industry's Research Association (ATIRA), Ahmedabad</a>	Composites
iv.	<a href="#">Wool Research Association (WRA), Thane</a>	Sportech

The essential facilities created in the CoEs are as follows:

- a. Facilities for testing and evaluation of products within the identified segments of technical Textiles
  - b. Attaining national/international accreditation and collaboration with foreign institutes/laboratories
  - c. Resource centre with I.T. infrastructure
  - d. Facilities for indigenous development of prototypes
  - e. Facilities for training personnel engaged in the technical textile industry
  - f. Knowledge sharing with stakeholders
  - g. Incubation centre
  - h. Establishing product and process standards at par with international benchmarks or points of reference
- ii. **Upgrading the existing four Centres of Excellence (CoEs):** The four CoEs already established under the Scheme for Growth and Development of Technical Textiles (SGDTT) have been upgraded in line with the new CoEs.

**Mini-Mission- II:** *The objective of Mini Mission II is to provide support for the development of domestic & export markets for technical textiles. The interventions are:*

- i. **Support for business start-up:** As the technical textiles industry is a relatively new

area, entrepreneurs (especially from the SME sector) find it difficult to begin a new project in this industry. The CoEs and other associations / institutes / independent reputed consultants have been empanelled by the MOT / Office of the Textile Commissioner to prepare project reports and provide complete support and assistance to the potential entrepreneurs till the completion of their projects. The consultants will provide end to end service to the potential entrepreneurs which include product selection, technology definition and procurement, market assessment, commercialization and marketing assistance. Six consultants have been empanelled for Business Start-up component under Technology Mission on Technical Textiles (TMTT). The list of consultants empanelled under the intervention is available at the website [www.technotex.gov.in](http://www.technotex.gov.in)

- ii. **Providing fund support for organizing workshops:** Awareness about technical textiles in India is still low. In order to create an environment of understanding and familiarity with technical textiles, reputed national and international agencies, including the Indian diaspora settled abroad, are being invited to conduct seminars, workshops and short term training programmes in which knowledge about the latest technologies, international practices, market details, global scenario etc. are being shared.
- iii. **Social compliance through standardization, regulatory measures:** Some technical textiles require encouragement for use by user industries/Ministries and some require mandatory prescription. Under this component, Studies on developing measures to promote use of Geotextiles & Agrotextiles have been undertaken by the Ministry of Textiles, and the final reports have been uploaded on the website [www.technotex.gov.in](http://www.technotex.gov.in) and have been shared with relevant stakeholders.
- iv. **Market development support for marketing to bulk and institutional buyers:** Under this component, Buyer-Seller meets are being organized across the country wherein indigenous manufacturers can showcase their products to institutional buyers and the latter are being invited to help enhance the marketing competitiveness of the technical textile manufacturers.
- v. **Market development support for export sales:** There are many reputed technical textile fairs organized abroad. Active participation and networking in such events will improve the export potential for indigenous manufacturers. Some technical textile units are also participating in the exhibition of application based fairs. The support includes fund support to Indian technical textile manufacturers for exhibition of their products in such Technical Textile fairs/Application based fairs.
- vi. **Contract Research and Development through IITs/TRAs/Textile Institutes:** Technical Textile is a technology-intensive industry. In India, most of the new material high-end converted products are imported. Thus, there is a strong need for indigenous development of products for which R&D is of prime importance. Therefore, contract research is covered under this head.
- vii. **Scheme for Promoting Usage of Agrotextiles in India (excluding North Eastern States):** With the overwhelming response of the Scheme for promoting usage of Agrotextiles in NER, a new Component "Scheme for Promoting Usage of Agrotextiles in India (excluding North Eastern States)" has been introduced & funded under Mini-Mission-II of Technology Mission on Technical Textiles (TMTT) for a period of two years (2015-16 & 2016-17) with a fund outlay of Rs. 5.00 crores.
- viii. **Focus Incubation Centres (FIC):** In order to help the potential investors to enter into technical textiles, Ministry of Textiles is setting up Focus Incubation Centers (FIC) in

the COEs established under TMTT on plug and play model. Accordingly an amount of Rs.17.45 crores has been sanctioned to six CoEs namely ATIRA, DKTE, NITRA, PSG College of Tech, SASMIRA & SITRA for setting up of FICs. The above FICs are entrusted with the following objectives and responsibilities:

- a. Industrial sheds with basic infrastructure/basic machineries may be made available to the prospective entrepreneurs for setting up their units for production on commercial scale.
- b. FICs may be provided to new entrepreneurs on "Plug and Play" model with mentoring by the concerned CoE for taking up the innovation on commercial scale.
- c. Once they get established they shall shift to their own facilities and the center will be made available to new entrepreneurs.
- d. CoEs have to establish the FIC's in their area within a time period of six months.
- e. There will be separate line of equipments for each entrepreneur.
- f. FICs would be run by entrepreneurs and not the CoEs.
- g. Setting up of Incubation Centre by the COEs may be completed on a time bound manner i.e. within six months. Basic infrastructure covering industrial shed with machineries may be provided to new start up entrepreneur on "plug and play" system for production of technical textiles on commercial scale, giving attention to requirements under the Government sponsored schemes of various Departments like M/o Agriculture, M/o RD, DONER, M/o RTH etc. The CoEs may do handholding of such new entrepreneurs and extend them necessary support and guidance.
- h. Indian Institute of Technology, Delhi has also been requested to make aware their fresh IIT graduates about these facilities for helping them in starting up new business.

**C. Scheme for Promoting Usage of Agrotextiles in NER:** The scheme was launched by the Ministry of Textiles in December, 2012. Following are the details of the scheme:

**Duration of the Scheme:** 12<sup>th</sup> Five Year Plan period

**Total Fund Outlay:** INR 55 crores

**Objective:** To promote and increase the usage of Agrotextiles, in agriculture, horticulture/ floriculture, sericulture and allied activities in NER

Scheme Components – Two scheme components

- Creating awareness, setting-up of Demonstration Centers and developing capacities
- Provide/disburse agrotextile kits in the NER states

**D. Scheme for Promoting Usage of Geotextiles in NER:**

**Duration of the Scheme** – 5 years (from 2014-15 to 2018-19)

**Total Fund Outlay** – INR 427 crores

**Objective** – To promote and utilize Geo textiles in development of the infrastructure in the NE states by providing technological and financial support for meeting additional costs, if any, due to the usage of Geo textiles in existing/ new projects in road, hill/ slope protection, water reservoirs and river bank erosion control. The Projects would be identified in consultation with the State-Governments & concerned Stakeholder Agencies

Scheme Components – Two scheme components

- Application of geo textiles solutions including onsite installation (INR 374 crores)
- Sensitization activities, market studies, on-site testing, training and capacity building, etc. (INR 4 crores)

**E. Technology Upgradation Funds Scheme (TUFS):**

All technical textile machinery is covered under the Technology Upgradation Fund Scheme (TUFS). Under TUFS, specified technical textile machinery has been provided with additional benefit in terms of 10% capital subsidy in addition to 5% interest reimbursement.

So far, 856 Technical Textile units are registered under TUFs.

#### **F. Scheme for Integrated Textile Parks (SITP)**

The 'Scheme for Integrated Textile Parks (SITP)' was approved in the 10th Five Year Plan to provide the industry with world-class infrastructure facilities for setting up their textile units by merging the erstwhile 'Apparel Parks for Exports Scheme (APES) and Textile Centre Infrastructure Development Scheme (TCIDS)'. Under the Scheme for Integrated Textile Parks (SITP), the Government provides assistance for creation of infrastructure in the parks to the extent of 40% limited to US\$ 8.82 million.

#### **G. Focus Product Scheme for Technical Textiles**

The objective of this scheme is to incentivize export of products that have high export intensity or employment potential. In order to offset infrastructure inefficiencies and other associated costs involved in marketing these products, Exports of notified products to all countries (including SEZ units) shall be entitled for Duty Credit scrip equivalent to 2 % of FOB value of exports (in free foreign exchange). As per DGFT's Policy Circular No. 42 (RE-2010)/2009-14 dated 21 October 2011, there are 33 Technical Textile products that are allowed for FPS benefits under this scheme.

#### **H. Concessional Customs Duty on Machinery:**

Specified machinery used for the production of technical textiles is covered in the concessional customs duty list of 5%.

#### **I. Scheme for Strengthening of Database and Standards for Technical Textiles (Merged with TMTT):**

The scheme is aimed at creating a repository of knowledge that will facilitate effective policy decisions by the government and business decisions by industry stakeholders. Under this Ministry of Textiles is conducting the following activities:

- a. Baseline survey for Strengthening of Database of Technical Textile industry: Ministry of Textiles is conducting a 'Baseline survey for Strengthening of Database of Technical Textile industry'. The objectives of the project are to identify the market size, consumption, trade trends, number of units, type of units, type of products produced, investment, turnover, employment etc., in the field of Technical Textiles in India. Currently, the study is underway and shall be completed shortly.
- b. Identification of HS codes for Technical Textile items:
- c. As the Technical Textile items are not classified separately. Consequently, Ministry of Textiles is also working on identification of HS Codes of Technical Textile items to monitor and track trade trends in technical textile sector.

#### **For further details:**

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