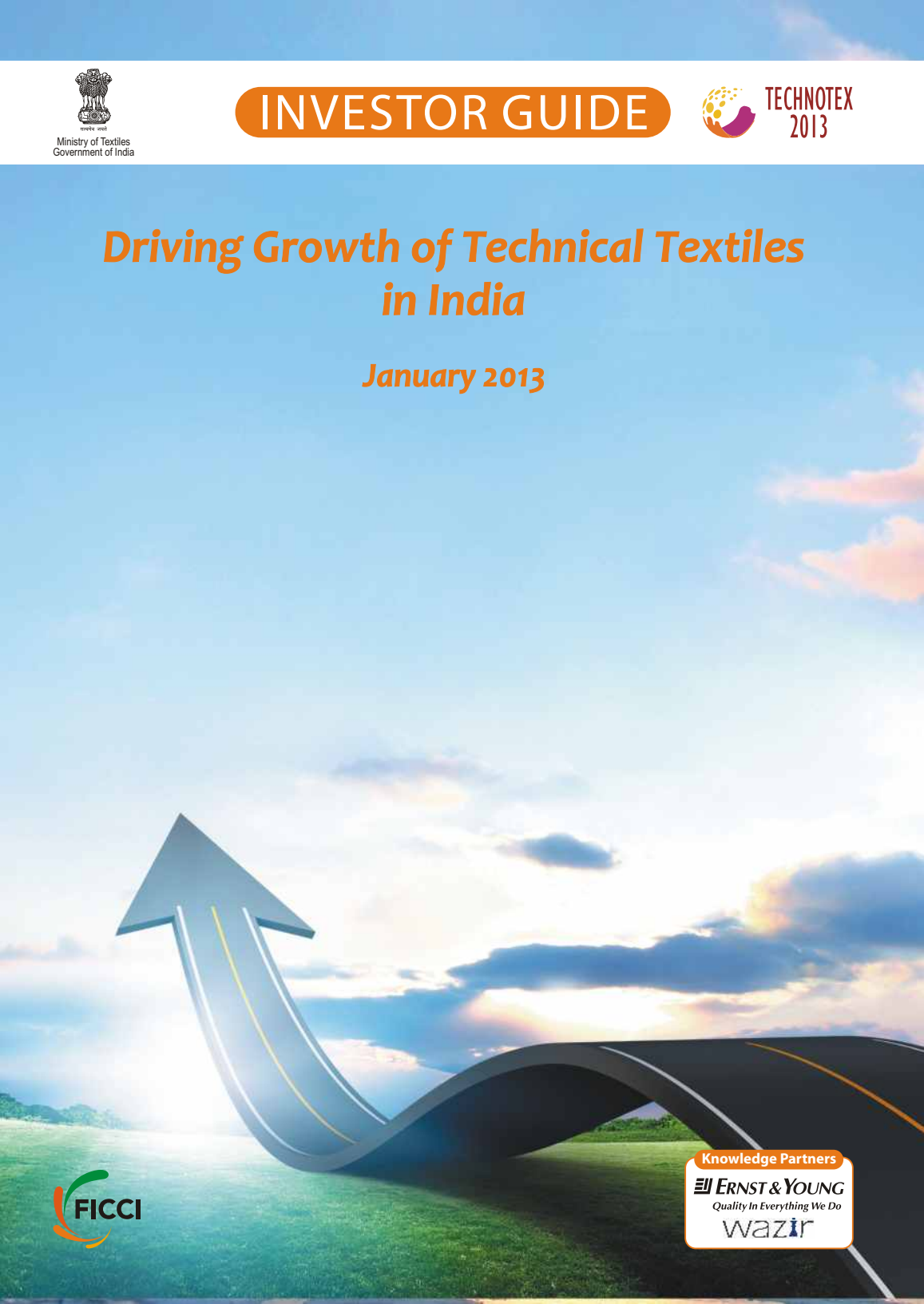
Ministry of Textiles
Government of India

INVESTOR GUIDE

TECHNOTEX 2013

Driving Growth of Technical Textiles in India

January 2013



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Message

Technical Textiles are value-added textiles used for their diverse and multifunctional properties. These performance-enhancement textiles are prominent in the areas of protective clothing, agriculture, infrastructure development, environmental protection, packaging, sportswear, etc. An emerging area of investment for India, technical textiles are critical to improving the quality of life of every citizen, but their potential in the country is largely untapped.

The Indian technical textiles market has grown to a size of Rs. 57,000 crores at a CAGR of 11% since 2007-08 in India. With proper standardization and regulation, the sector has the potential to grow at 20% year-on-year during the 12th Five Year plan period. With India comprising nearly a fifth of Asia's consumption of technical textiles, the prospects in domestic markets encourage investments in the nation's technical textiles sector.

National and state governments are taking extensive measure to expand and modernize infrastructure along with building the nation's knowledge repository and R&D facilities, which will be crucial factors underpinning India's future transition to an R&D-led knowledge economy. Government of India has implemented several initiatives, such as the Scheme for Growth and Development of Technical Textiles (SGDTT), inclusion of major machinery for technical textiles under modified TUFS for 10% capital subsidy, as well as the 2010-11 to 2014-15 Technology Mission on Technical Textiles (TMTT). These schemes have resulted in the establishment of Centers of Textiles for technical textiles, which assist industries in the Indian technical textiles sector with a variety of testing, training, and product- and prototype-development services.

This publication showcases the vast magnitude of opportunities in India's technical textiles sector, as well as the enabling policy and infrastructure resources available to stakeholders across the technical textiles value chain. Investors thus have easy and ready access to the necessary information for taking advantage of India's enabling investment environment.

I strongly encourage all stakeholders and new entrants into India's technical textiles sector to take full advantage of resources offered by Government of India to facilitate mutual benefits, and so enable our country to earn global recognition in this sector, as it has in so many other technology-focused fields.

(Kiran Dhingra)

New Delhi
January 14, 2013

INDUSTRY SPEAK

On the demand side, with 1.2 billion population, expanding middle class and urban population, higher disposable incomes, integration with global markets and infrastructure growth are triggers for growth of the sector. While on the supply side, low manufacturing costs, indigenous availability of raw materials at competitive rates, availability of technology, expansion of modern trade, Public Private partnership in infrastructure, Government support to the sector (TUF, Technology Mission etc), are major enablers.

Hence, there are enough reasons for the investors to diversify into technical textile sector.

Shishir Jaipuria, *Managing Director,* **Ginni Filaments Ltd.**

In the three decades of my professional experience as Civil Engineer, I have not come across with any material other than geosynthetics, which in a variety of forms has emerged as a wonderful product to enhance the performance of traditional materials and structures remarkably.

Sudhir Mathur, *Chief Scientist,* **CRRI, New Delhi**

Infrastructure is India's biggest requirement. Geosynthetics is an integral part of infrastructure development across the globe; India cannot be any different. Over next 10-15 years, Indian demand for geosynthetics is bound to take a high growth trajectory. At Skaps, we fully appreciate this fact and hence India features strongly in our business growth plans

Perry Vyas, *President,* **SKAPS Industries**

Product innovation or improvement is the mother's milk for long term industrial success. But to catch up to the others quickly we should endeavor to leapfrog existing paradigms via joint ventures. In the US the most successful innovators both in terms of quality and quantity are not the big US MNC but the US SMEs. Building linkages with SMEs will have the biggest pay back not only from an industrial and product perspective but deep involvement of US SMEs in India will create long term stable FDI and significant geo political advantages for both countries. The proper role for Government is active promotion of technology driven Joint Ventures with the SMEs sector

Sarojit Malik, *Managing Director,* **Access International Capital, LLC**

INDUSTRY SPEAK

The current investment in the country with respect to technical textiles is one which is being regarded with cautious optimism. Investors have money to invest, but they do not want to get into the marketing of the products made and hence there is this resistance in thoughts. The more proactive ones have already got themselves into the business accepting this fact, but for the market to grow in general, there has to be a paradigm shift in thoughts from selling traditional textiles to selling technical textiles.

Vikas Sharan, *Vice President,* **A.T.E. Enterprises Private Limited**

The manpower available in India is not too skilled in their technical and managerial skills. But, India having a large labor population, is cheaper so the companies are attracted. Thus, people are needed to be trained and educated.

Ahemedabad Textile Industry Research Association (ATIRA)

Developed countries have already reached a level of near saturation in technical textiles. With declining growth rate and intense internal and global competition, the producers of technical textiles in the developed countries are looking upon India as an opportunity. Indian entrepreneurs who value technology to develop technical textiles can capitalize these opportunities for business and the scope for value addition

Siddharth Y. Kusumgar, *Managing Director,* **Kusumgar Corporates Pvt. Ltd**

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Glossary

No.	Abbreviation	Full form
1.	Agrotex	Agricultural Textiles
2.	ATIRA	Ahmedabad Textile Industry's Research Association
3.	BIS	Bureau of Indian Standards
4.	BTRA	Bombay Textile Research Association
5.	Buildtex	Building Textiles
6.	Clothtex	Clothing Textiles
7.	COE	Center of Excellence
8.	CRRI	Central Road Research Institute
9.	CST	Central Sales Tax
10.	DKTE	DKTE Society's Textile & Engineering Institute
11.	EPF	Employee Provident Fund
12.	ESI	Employees State Insurance
13.	FDI	Foreign Direct Investment
14.	FICCI	Federation of Indian Chambers of Commerce and Industry
15.	FYP	Five Year Plan
16.	Geotex	Geotechnical Textiles
17.	GoI	Government of India
18.	GR	Government Resolution
19.	GST	Goods and Service Tax
20.	HDI	Human Development Index
21.	Hometex	Home furnishing Textiles
22.	Indutex	Industrial Textiles
23.	ITI	Industrial Training Institutes
24.	ITTA	Indian Technical Textile Association
25.	LMI	Large and Medium Industries
26.	MMF	Man-made fibres
27.	MMFY	Man-made filament yarns
28.	Meditex	Medical Textiles

No.	Abbreviation	Full form
29.	Mobiltex	Automotive Textiles
30.	MSE	Micro and Small Enterprises
31.	MSME	Micro, Small and Medium Enterprises
32.	NITRA	Northern India Textile Research Association
33.	Oekotex	Ecological protection textiles
34.	OTXC	Office of Textile Commissioner
35.	Packtex	Packaging Textiles
36.	PMMC	Project Management and Monitoring Consultant
37.	PPP	Public Private Partnership
38.	Protex	Protective Textiles
39.	PSG	PSG College of Technology
40.	RBI	Reserve Bank of India
41.	SASMIRA	Synthetic & Art Silk Mills Research Association
42.	SGDTT	Scheme for Growth and Development of Technical Textiles
43.	SIDCO	Small Industries Development Corporation
44.	SIPCOT	State Industries Promotion Corporation of Tamil Nadu Ltd
45.	SITP	Scheme for Integrated Textile Parks
46.	SITRA	South India Textile Research Association
47.	SME	Small and Medium Enterprises
48.	Sportex	Sport Textiles
49.	SPV	Special Purpose Vehicle
50.	SSI	Small-scale Industries
51.	TIDCO	Tamil Nadu Industrial Development Corporation
52.	TMTT	Technology Mission on Technical Textiles
53.	TUFS	Technology Upgradation Fund Scheme
54.	VAT	Value-added Tax
55.	WRA	Wool Research Association

Conversion rate considered:

US $ 1 = INR 55

US $ 1 = EURO 0.76



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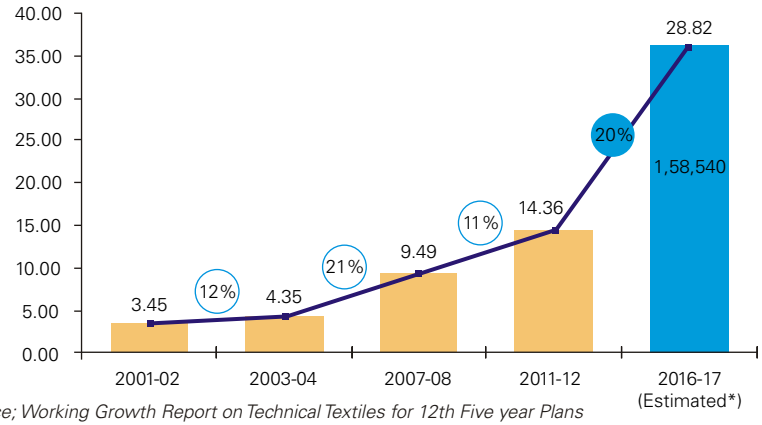
TECHNICAL TEXTILES

1 Technical Textiles

1.1 Sector overview

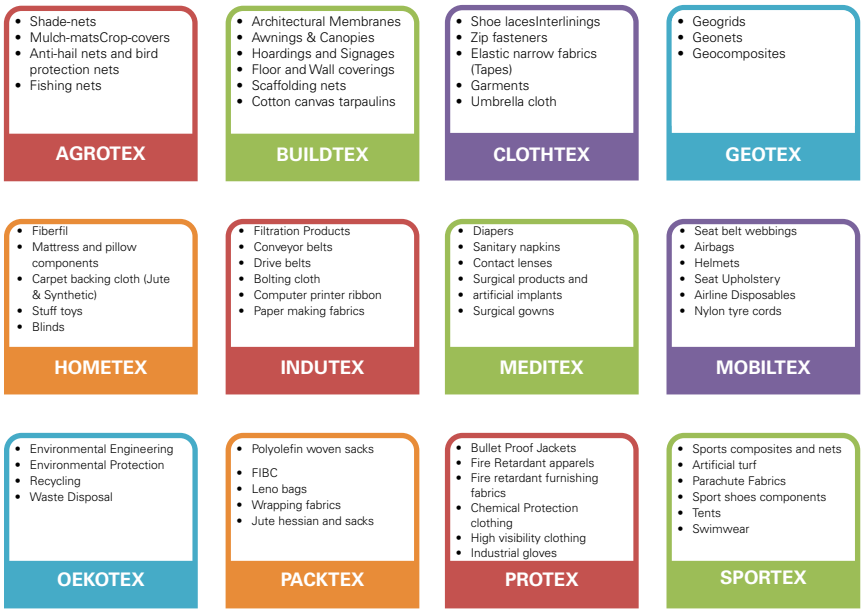
Technical Textiles are functional/welfare textiles used for their diverse and multifunctional properties. Technical textiles offer several advantages in their functional aspects for improving health and safety, cost effectiveness and durability and strength of textile material. These performance-enhancement products are applicable in the protective clothing, agriculture, medical, infrastructure development, automotive, aerospace, sports, and packaging sectors.

While the global market size of the technical textiles sector was estimated to be US$ 104,000 million in 2010, this sector is still in nascent stages in India. Based on past trends of growth and estimated end user segment growth, the Working Group on Technical Textiles for 12th Five Year Plan (FYP) projected the market size to reach US$ 28,727 million by 2016-17 at a year-on-year growth rate of 20% during 12th FYP.



Source; Working Growth Report on Technical Textiles for 12th Five year Plans
Figures in bar chart are in Rs. Crore 1USD=INR55

Based on their functional requirements and end-use applications, the diverse range of technical textiles can be grouped into 12 categories, as shown in the figure below:



1. Agrotex (Agriculture, horticulture and fishing):

Agricultural textiles are used in farming, animal husbandry and horticulture to control the hazardous influences of environmental and climactic factors on crop production and cattle breeding, regulate nutrient level intake of plants, and assist in process and post harvest operations. Agrotextiles, in the form of nets, ropes and lines, have also been used extensively in the fishing industry. Agrotextiles have been demonstrated to be successful world over in not only protecting the crops from any external factors, but also in improving agricultural yield. Given the importance of agriculture to the Indian economy and population, the need and potential application of agrotextiles in the country is significant and vast.

As per estimates by the Working Group on Textiles and Jute Industry, Ministry of Textiles, Government of India, the Indian agrotex segment is expected to grow at a rate of 20% to US $ 340 million by 2016-17. Key Indian manufacturers in the segment include:

- Shade nets: Garware Wall Ropes, CTM Agrotextiles Ltd., Rishi Techtex Ltd, Tuflex (Netlon India Ltd) and Neo Corp International Ltd.
- Mulch mats: Unimin, Fiberweb India, Shivam Polymers, Climax Synthetics Pvt. Ltd., Creative polymers Pvt. Ltd. and Essen Multipack Ltd.
- Anti-hail nets and bird protection nets: Tuflex, Kwality Nets and Garware Wall Ropes
- Crop covers: Unimin India Ltd, Fiberweb India Ltd, KK Non-woven and KT Exports;
- Fish nets: Garware Wall Ropes, Hinafil India Pvt Ltd., SRF Polymers Limited.

2. Meditex (Medical and Hygiene Textiles)

Meditex products include textile material used in hygiene, health and personal care, as well as in surgical applications. These products include: wipes, baby and adult diapers, adult sanitary and incontinence products, as well as, medical and surgical products, such as operating gowns, operating drapes, sterilization packs, dressings, sutures and orthopaedic pads. At the highest value end of this segment are relatively tiny volumes of extremely sophisticated textiles for uses such as artificial ligaments, veins and arteries, skin replacement, hollow fibres for dialysis machines, etc. Meditex products are available in woven, knitted and non-woven forms based on the area of application.

India's meditex segment is expected to grow at a rate of 20% to US$ 1,039 Million by 2016-17, as per estimates of the Working Group on Textiles and Jute Industry, Ministry of Textiles, Government of India. Key Indian manufacturers in the segment include:

- Baby diapers: Unimin India Ltd. and Fiberweb Pvt. Ltd.

- Sanitary napkins: Procter and Gamble, Johnson and Johnson and Kimberley Clark Lever
- Surgical disposables: Thea-Tex Healthcare Pvt. Ltd., Mediklin Healthcare Ltd., Sivshree Medittex India Pvt Ltd
- Surgical sutures: Johnson and Johnson, Centennial Surgical Suture Limited and Futura Surgicare Pvt. Ltd

3. Buildtex (Construction – Building and Roofing)

Textiles are employed in many ways in the construction of buildings, both permanent and temporary, dams, bridges, tunnels and roads. Temporary structures such as tents, marquees and awnings are some of the most obvious and visible applications of textiles. Architectural membrane has risen to prominence in the construction of semi-permanent structures, such as sports stadia, exhibition centres and other modern buildings. Other products include hoardings & signages, cotton canvas tarpaulins, HDPE tarpaulins, awnings & canopies, scaffolding nets, floor & wall coverings etc.

India's Buildtex segment is expected to grow at a rate of 17% to US$ 541 Million by 2016-17, as per estimates of the Working Group on Textiles and Jute Industry, Ministry of Textiles, Government of India. Key Indian manufacturers in the segment include:

- Architectural membrane: Entremonde Polycoaters Ltd.
- Canvas tarpaulin substrate: Gokak mills, Bharat Textiles, SRF Limited
- HDPE tarpaulin: Gujarat Raffia, Gujarat Craft
- Awnings and canopy: SRF and Entremonde Polycoaters
- Floor and wall coverings: Uniproducts, Birla Corporation
- Scaffolding nets: Rishi Techtex Ltd and Kwality Nets

4. Mobiltex (Automotive Textiles)

Automotive applications (cars, trucks, buses, trains, ships and aerospace) represent the largest single end-use area for technical textiles. Mobiltex products can be broadly classified into two categories: visible components and concealed components. Visible components

include seat upholstery, carpets, seat belts, headliners, etc. Concealed components include Noise Vibration and Harness (NVH) components, tyre cords, liners, composite reinforcements for automotive bodies, civil and military aircraft bodies, wings and engine components, etc.

The Mobiltex segment's growth depends largely on the growth of the automotive sector in India, which has been brisk in recent years. India's Mobiltex segment is hence expected to grow at a rate of 17% to US$ 1,870 Million by 2016-17 as per estimates of the Working Group on Textiles and Jute Industry, Ministry of Textiles, Government of India. Key Indian manufacturers in the segment include:

- Seat Belts: IFB Autoliv India, Abhishek Auto Industries, Bond Safety Belt and Rane TRW
- Seat covers: Faze Three Limited, Shamken Multifab and Bhilwara Melba Limited
- Automotive interior carpets: Uniproducts India, Bajaj Carpets, Hitkari Fibres and Supreme Non-wovens
- Headliner fabrics: Uniproducts (I) Ltd and Supreme Non-woven Pvt Ltd
- Insulation felts: Uniproducts India and Supreme Treves Pvt. Limited
- Nylon tyre cord fabric: SRF and Century Enka
- Airline disposables: Chaitanya fibres and JMDI Group

5. Clothtex (Clothing Components)

The Clothtex segment of technical textiles includes fibres, yarns and textiles used as technical components in the manufacturing of clothing such as sewing threads, interlinings, wadding and insulation; it does not include the main outer and lining fabrics of garments, nor does it cover protective clothing.

The Indian Clothtex segment is expected to grow at a rate of 22% to US$ 4,277 million by 2016-17 as per estimates of the Working Group on Textiles and Jute Industry, Ministry of Textiles, Government of India. Key Indian manufacturers in the segment include:

- Shoe laces: Neelam Shoe Lace Industry (Delhi), Indian Shoe Lace (Agra)
- Interlinings: Bombay Dyeing, Ruby Mills, Ashima Syntex and Talreja Textiles
- Nonwoven interlining fabric: Supreme Nonwovens Pvt. Ltd., KK Nonwovens India, Freudenberg Nonwovens India Pvt. Ltd.
- Zip fasteners: YKK India Private Limited, Tex Corp. Ltd., Zip Industries Ltd.
- Elastic narrow fabrics: Spica Elastic Private Limited, Sky Industries
- Hook and loop tape fasteners: Sky Industries Limited, Siddartha Filaments Private Limited
- Sewing threads: Madura Coats, Mahavir Spinning Mills (Vardhman Threads) and Precot Meridian

6. Oekotex (Ecological Protection Textiles)

Oekotex stands for new ideas and interesting concepts using Technical Textiles for environmental protection, waste disposal and recycling. It overlaps with several other areas, including industrial textiles (filtration media), geotextiles (erosion protection, insulation and sealing of toxic waste) and agricultural textiles (e.g. minimizing water loss from the land and reducing the need for use of herbicides by providing mulch to plants). The products under Oekotex segment can include geomembranes, geosynthetic clay liners from Geotex segment; air and water filters from Indutex segment, etc.

Growth of this segment depends upon the inclination of an economy in adopting the ecologically balanced concepts in environmental protection, waste disposal and recycling over the traditional methods which adversely impact the environment. Indian Oekotex segment is expected to grow at 22% to US$ 66 million by 2016-17 as per estimates of the Working Group on Textiles and Jute Industry, Ministry of Textiles, Government of India.

7. Geotex (Geotextiles in Civil Engineering)

The principal functions performed by Geotextiles are confinement/separation, reinforcement, filtration and drainage, and protection. Application areas include civil engineering (roads and pavements, slope stabilization and embankment protection, tunnels, rail-track bed stabilization, ground stabilization and drainage, etc), marine engineering (soil erosion control and embankment protection, breakwaters) and environmental engineering (landfills and waste management). As geotextiles reduce the land required and disturbances to the local environment during the construction of infrastructure, they offer several economic and environmental advantages.

Geotextiles products include geogrids, geonets, geopipes, geocells, geomembranes, geocomposites, prefabricated vertical drains, geotubes etc. With the growing emphasis on biodegradable products, fibres like woven jute have also attracted significant interest as temporary stabilizing material in infrastructure applications.

The Indian Geotex segment is expected to grow at a rate of 22% to US$ 201 Million by 2016-17 as per estimates of the Working Group on Textiles and Jute Industry, Ministry of Textiles, Government of India. Key Indian manufacturers in the segment include: Strata Geosystems, Garware Wall Ropes, SRF, Techfab India, Skaps, Terram, Maccaferri, Kusumgar, Neo Corp International Limited, Shri Ambica Polymer Private Limited, Shri Jagdamba Polymers Ltd., International Packaging Product Pvt. Ltd., Texel Industries Ltd., Aadi Plastic Industries Pvt. Ltd., Supreme Nonwoven, Charminar Nonwoven etc.

8. Packtex (Packaging and containment):

One of the important uses of textiles is the manufacturing of bags and sacks, traditionally from cotton, flax and jute but increasingly from polypropylene. Products covered under Packtex range from polymer-based bags used for industrial packing to jute-based sacks used for packaging food grains and packaging used for tea. This packaging (excluding jute) is also referred to as flexible packaging materials. The ability to re-use these containers in many applications in place of

disposable bags and sacks is another driver for their wider use. Products include polyolefin woven sacks (excluding FIBC), FIBC, leno bags, wrapping fabric, jute hessian and sacks (including food grade jute bags), soft luggage products (TT component), tea-bags (filter paper), etc.

The Indian Packtex segment is expected to grow at a rate of 22% to US$ 11,782 million by 2016-17 as per estimates of the Working Group on Textiles and Jute Industry, Ministry of Textiles, Government of India. Key Indian manufacturers in the segment include:

- Raffia: Texplast Industries, Tulsyan NEC, Rishi Techtex for Raffia
- Soft luggage: VIP industries, Universal Luggage
- Jute hessian and sacks: Cheviot Co Ltd, Gloster Jute Mills Ltd.

9. Hometex (Home textiles):

The Hometex segment of technical textiles comprises the textile components used in household applications. These products range from blinds used in houses to filter products used in vacuum cleaners, and are also important components in fibre-fills in mattress and pillows. Hometex products are made of both natural and synthetic fibres. Woven fabrics are still used to a significant extent as carpet, furniture backings and curtain header tapes. However, nonwovens such as spun-bond have made significant inroads into these larger markets while various dry-laid and hydro-entangled products are now widely used in household cleaning applications in place of traditional mops and dusters.

Indian Hometex segment is expected to grow at a rate of 20% to US$ 3,542 million by 2016-17 as per estimates of the Working Group on Textiles and Jute Industry, Ministry of Textiles, Government of India. Key Indian manufacturers in the segment include:

- Fibre-fill: Reliance Industries Limited, Ganesh Polytex, Arora Fibres limited, Alliance Fibres, Nirmal fibres Private limited
- Carpet backing cloth: Ludlow Jute, Birla Corporation, Gloster Jute
- Stuffed toys: Hanung Toys & Textiles Ltd
- Blinds: Hunter Douglas, Mac Décor Ltd., Aerolux India Private Limited and Viesta

- Mattresses and pillows: Kurlon Ltd. and Sleepwell
- Flock fabrics: The Rishabh Velveleen Limited, Girdhar & Company, Sangam Group of Companies, Chiripal Group of Companies and Niranjan Deco Flocks
- PU coated fabrics: Jasch Group, NELCO, Aman Leather

10. Protex (Protective and safety clothing and textiles):

Protective Textiles are textile products and related materials used in the manufacture of protective clothing for personnel working in hazardous environments. Protective clothing includes garments for protection from harmful chemical environment, extreme temperature environments, low visibility, ballistics, and protection from other types of severe impact hazards. Protex products are also used for sensitive instruments during high-risk engagements and procedures. Protex products include bullet-proof jackets, radiation protection textile/NBC suits, high-altitude clothing, fire-retardant fabrics and apparel, ballistic protective clothing, high-visibility and foul weather clothing, chemical protection clothing, industrial gloves, radiation protection textiles, etc.

The Indian Protex segment is expected to grow at a rate of 23% to US$ 967 million by 2016-17 as per estimates of the Working Group on Textiles and Jute Industry, Ministry of Textiles, Government of India. Key Indian manufacturers in the segment include:

- Bullet proof jackets: Tata Advanced Material Limited, Anjani Technoplast
- Chemical coated fire retardant fabrics: Rajasthan Weaving and Spinning Mills Limited, Jaya Shree Textile
- Inherent fire retardant fabrics: Trevira from Reliance Netherlands B.V, Rajasthan Weaving and Spinning Mills Limited
- Fire/flame retardant apparel: Tara Lohia Pvt. Limited, Mallcom India Limited
- Nuclear Biological and Chemical (NBC) suits/Hazmat suits: The Ordnance Factory

- High-visibility clothing: Reflectosafe, Intech Safety Private Limited
- Chemical protection clothing: Northstar Safety Products Pvt. Ltd. (Chandigarh), Intech (Kolkata), and Jyotech Engineering Co. Pvt. Ltd.
- High-altitude clothing: Ordnance Factory Board, Entermonde Polycoaters
- Industrial gloves: Mallcom India Limited, Rajda Industries and Exports Pvt. Ltd.

11. Indutex (Industrial products and components):

Indutex includes textiles used directly in industrial processes, as well as textiles incorporated into industrial products, such as filters, conveyor belts and abrasive belts, as well as, reinforcements for printed circuit boards, seals and gaskets and other industrial equipment.

The Indian Indutex segment is expected to grow at a rate of 18% to US$ 2,034 million by 2016-17 as per estimates of the Working Group on Textiles and Jute Industry, Ministry of Textiles, Government of India. Key Indian manufacturers in the segment include:

- Decatising Wrapper: Bombay Dyeing, JKT Fabrics and Noor Textiles
- Bolting Cloth: Bombay Bolting Centre, Surat Bolting, Khanna Bolting
- Battery Separators: Daramic Products and AGM separators
- Backing Cloth for Coated Abrasives: Madura textiles and Keetex Textile
- Conveyor Belts: Phoenix Yule, MRF, Sempertrans Nirlon
- Drive Belts: Fenner India, Pix transmissions, Nirlon Ltd and L. G. Balakrishnan & Bros Ltd.
- Glass Fibre Fabric: UP Twiga Fibres, Montex Fibre Glass, Satyaluxmi International, SRM International

12. Sportex (Sport and leisure):

Textiles used in the sports and leisure industries have diverse applications ranging from artificial turf used in sports surfaces to advanced carbon fibre composites for racquet frames, fishing rods, golf

clubs and cycle frames. Other highly visible uses are balloon fabrics, parachute and paraglide fabrics and sailcloth. Sportex products include sports composites, artificial turf, parachute fabrics, ballooning fabrics, sail cloth, sleeping bags, sport nets, sport shoes components, tents, swimwear etc.

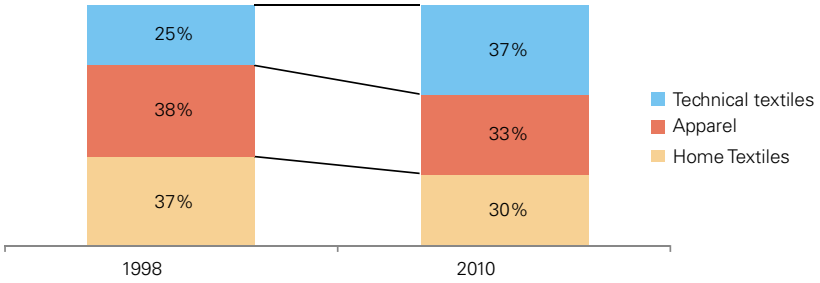
The Indian Sportex segment is expected to grow at a rate of 17% to US$ 622 million by 2016-17 as per estimates of the Working Group on Textiles and Jute Industry, Ministry of Textiles, Government of India. Key Indian manufacturers in the segment include:

- Sports composites: Sanspareils Greenlands Pvt Ltd., Soccer International Pvt Ltd., Mayor International Limited
- Parachute fabrics: Kusumgar Associates (Mumbai) and Oriental Synthetics & Rayon Mills Pvt. Ltd (Mumbai)
- Ballooning fabrics: Bandhu Aerospace Private Ltd
- Sleeping bags: Standard Gram Udyog Sansthan, Kanpur Tent Factory, Mahalaxmi Textile Industries
- Sport nets: Garware Wall Ropes and Kwality Nets
- Shoe components manufacturers: Reebok, Adidas, Nike, Bata, Liberty, Lakhani, Relaxo
- Tent fabrics: M Kumar Udyog, Madhur Enterprises Pvt. Ltd. (Kanpur), Tirupati Taxco Product Pvt. Ltd

1.2 Technical Textile consumption

The global consumption of technical textiles has grown to 23 million MT at a Compounded Annual Growth Rate (CAGR) of 3% between 2007 and 2010. Global demand for technical textiles has significantly grown since 1998, as technical textiles command the highest consumption of all textile segments worldwide, as witnessed in the figure 1 below:

Figure 1: Changing Global Textile Consumption



Source: Industrial Fabrics Association International (IFAI)

As India is the second largest textile economy in the world following China, India's potential contribution to the global technical textiles market is extensive. USA, Western Europe and Japan account for 65% of the global consumption of the technical textiles, while China's consumption comprises over 15% of global figures, and India's consumption only 8.6% of global consumption of technical textiles[1].

Nonetheless, the sector has demonstrated encouraging growth trends in India. The Indian technical textiles market has grown at CAGR of 11% to an estimated US$ 11,491 million between 2007-08 and 2011-12[2]. Furthermore, India's technical textile products are also growing increasingly prominent in global markets, as the nation's exports of these products has increased by nearly 60% from US$ 178 million in 2010-11 to US$ 284 million in 2011-12[3].

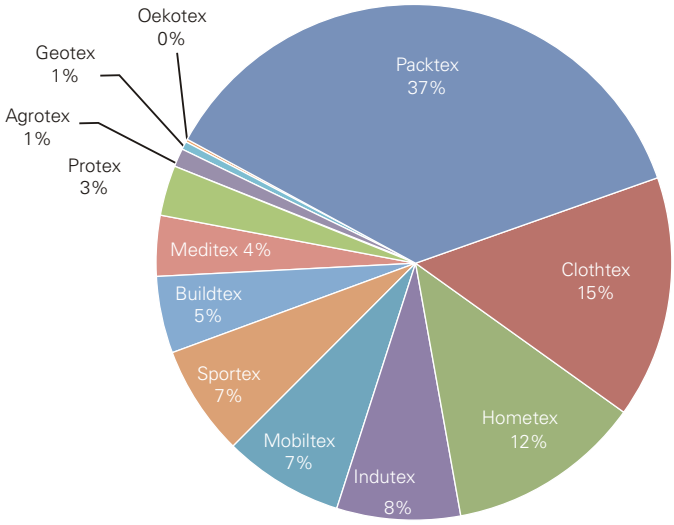
Packtex is currently the most dominant segment in the national technical textile industry, controlling nearly 40% of the market share for technical textiles in the country, followed by Hometex and Mobiltex at approximately 10%, each. Nonetheless, Sportex has demonstrated the highest potential for growth, growing by 11% year-on-year. Oekotex and Protex also pose encouraging prospects for growth, with Buildtex, Meditex, and Agrotex expected to achieve moderate growth.

[1] Report of working group on textiles and jute industry for the 12th five year plan, Ministry of Textiles, Government of India

[2] Baseline Survey of the technical textile industry in India, Office of the Textile Commissioner, March 2009

[3] Directorate General of Commercial Intelligence and Statistics, Ministry of Commerce and Industry, Government of India

Figure 2: Changing Global Textile Consumption



Source: Baseline Survey of the Technical Textile Industry in India, Office of the Textile Commissioner, March 2009

1.3 Growth enablers

The enablers for such market growth 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 14.3% from US$ 969 in 2010-11 to US$ 1,108 in 2011-12[4], promising economic growth indicate corresponding trends for income growth. Holistic

[4] Central Statistics Organisation, Ministry of Statistics and Programme Implementation, Government of India. Data is as per current prices.

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. Ministry of Textiles, Government of India has also proactively promoted India's technical textiles sector through several international road shows.

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:

- Technological Upgradation Fund Scheme (TUFS)
- Benefits under Special Economic Zone (SEZ) and 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

- Technological Mission for Technical Textiles (TMTT)

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 US$ 364 million[5] of 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 into the Indian technical textile industry.

g) Scope for introduction of regulatory norms

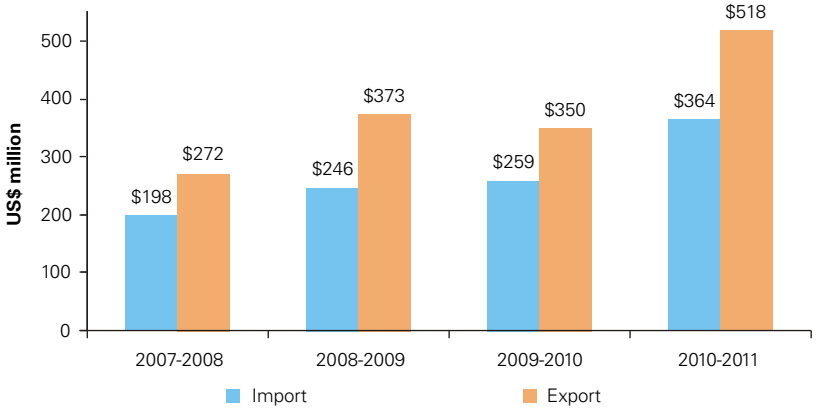
Ministry of Textiles is working to institute regulatory norms for technical textile products that align with those of developed nations. Successful implementation of these norms can lead to exponential increase in demand and consumption of technical textiles products in India.

1.4 Trade trends

In consultation with industry, field experts and Centers of Excellences for technical textiles, Ministry of Textiles is identifying HS Codes for the technical textile products that are currently being traded under the HS Codes of traditional textile products and those technical textile products that are mixed with other products. Ministry of Textiles has identified 81 HS Codes as technical textiles. The following report captures the trade trends for products identified under these codes.

[5] Import and export data is based on the 81 HSN Codes identified by Ministry of Textiles as technical textile items

Figure 3: India's trade in technical textiles



Source: Department of Commerce, Ministry of & Industry, Govt. of India

While India exports nearly 50% of all its production of technical textiles, the increase of the country's exports at CAGR of 17.4% between 2010-11 and 2007-08 indicates encouraging global demand for India's technical textile products. Furthermore, with CAGR of 16.4% in imports between 2007-08 and 2010-11 alone, Indian consumers have demonstrated significant demand for technical textiles products. The country especially relies on imports for its supply of Meditex (28% of consumption), Protex (16%), and Geotex (41%).

These statistics highlight not only concerted domestic needs, but also India's potential to address global demands, for technical textiles products. With advancing technology, higher integration with global markets, and greater sensitization to market needs, the Indian technical textiles industry demonstrates significant potential, for the development of local industry and prospective entrepreneurs.

1.5 Major Investments in the Last Few Years

Technical textile is the fastest growing segment in textiles in India and has generated considerable investor interest in the recent past. Following are the major investments from foreign companies in India's technical textiles sector:

S. No.	Name of the Company	Investment Type/Size	Year of Investment	Segment of Technical Textiles
1	Johnson and Johnson	Subsidiary/ NA	1947	Meditex
2	Procter & Gamble	Subsidiary/NA	1951	Meditex
3	3M	76% of Stake in JV/ NA	1988	Nonwovens, Indutex, etc.
4	Dupont	Subsidiary/US$ 65.80 million	1994	Protex
5	Kimberley-Clark	JV/NA	1994	Meditex
6	Maccaferri	Subsidiary/ US$ 13.16 million	1997	Geosynthetics
7	Freudenberg	Subsidiary/ NA	1998	Indutex and Non wovens
8	KARL OTTO BRAUN GmbH	Subsidiary/ US$ 9.21 million	1998	Meditex
9	Huntsman	Subsidiary/NA	2000	Mobiltex, Geotex
10	Schoeller Textil AG	JV/ NA	2003	Protex
11	SKAPS	Subsidiary/NA	2004	Geosynthetics
12	Strata Geosystems Ltd.	JV/NA	2004	Geosynthetics
13	Ahlstrom	Subsidiary/US$ 72.37 million	2006	Non-Woven
14	Teijin	Subsidiary/NA	2006	Protex, Composites etc.
15	Lindstrom	Subsidiary/NA	2007	Protex
16	Klopman	Subsidiary/US$ 65.80 million	2009	Protex
17	Honeywell	Subsidiary/NA	2009 Packtex	Protex and
18	Terram	Subsidiary/US$ 10 million	2010	Geosynthetics
19	Hollingsworth & Vose	JV/NA	2011	Indutex

Following are the latest investments in Technical Textiles in India:

S. No.	Name of the Tcompany	Investment Type/Size	Year of Investment	Segment of No. Technical Textiles
1	Shri Laksmi Cotsyn	Own/US$ 171.07million	2011	Protex
2	Lectra	Subsidiary/NA	2012	Indutex
3	Alliance Polysacks Pvt. Ltd.	Own/NA	2012	Packtex
4	Alok International	JV/NA	2012	Hometex
5	Caparo Group	Subsidiary/NA	2012	Composites/ Mobiltec
6	Precot Meridian Ltd	Own/NA	2012	Nonwovens
7	Toho Tenax Co Ltd. & Hindoostan Technical Fabrics Limited	JV/NA	2012	Composites
8	Global Nonwovens	Own/US$ 251.32 million	2012	Nonwovens
9	IKEA	Subsidiary/US$ 1,973.85 million	2012	Hometex
10	Sanrhea Technical Textiles	Own/NA	2012	Nonwovens



Mr K Ramachandran Pillai
CMD, National Textile Corporation Limited

This is the right time for us and all the entrepreneurs to invest in technical textiles..

NTC has been cautious, like many other big textile players to venture into Technical textiles, due the market uncertainty and creation and implementation of standards in use of technical textiles. The other factors being expertise in the field of technical textiles. Although NTC is long being into conventional textiles and recently doing very well in terms of production and marketing, we lack the technical textile expertise. Like any Government organization, we are cautious and through to start a new area before proper analysis. However with the recent thrust by the Government bodies, Center of Excellences and the ministry of textilis and with the support of Government of India, NTC has initiated the venture into technical textiles in partnership of the world's best players from USA, Germany and Japan. We have entered into the MOU with two of the companies for marketing tie-up in technical textiles and ultimately will be moving into the manufacturing, once we achieve the set targets of marketing and execution of projects. We have put INR 250 Cr, earmarked for 12 such Joint Ventures in technical textiles in different sub groups such as Geotextiles, Protective textiles, Medical textiles and so on. NTC will be playing a major role in procurement manufacturing and execution of Geotextile and infrastructural projects in India in collaboration with Ministry of Textiles and help improve the infrastructure quality and life. NTC will also be helping Indian forces in selecting, procuring and evaluating the right kind of technical textile garments and accessories for its manpower.

India is on the path of growth, being the second best performer in the world and being one of the largest markets of Technical textiles. This is the right time for us and all the entrepreneurs to invest in technical textiles and be a part of sucess story of the growth of a nation.



2

RESOURCE AVAILABILITY IN INDIA

2 Resource availability in India

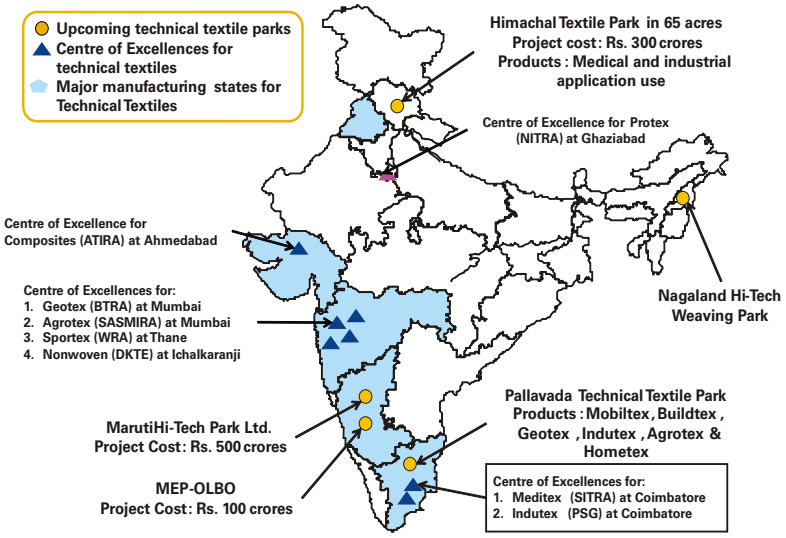
2.1 Infrastructure availability

India's technical textile sector is primarily SME-oriented, with manufacturing majorly concentrated in the states of Maharashtra, Gujarat, Tamil Nadu, Karnataka, and Punjab.

Ministry of Textiles has supported the establishment of 8 Centres of Excellences (COEs) that focus on various segments of technical textiles. These COEs act as one-stop centres for various services relevant to technical textile industries, including:

- Facilities for testing and evaluating technical textiles products of identified segments in collaboration with national and international accreditations and collaborations with foreign institutes and laboratories
- Research and development facilities
- Resource centres with I.T. infrastructure
- Facilities for indigenous development of prototypes
- Facilities for training personnel in the technical textile industry
- Knowledge sharing with stakeholders
- Incubation centre facilities
- Identification and drafting of product and process standards for ensuring quality that is globally accepted

Major manufacturing states for Technical Textiles



2.2 Centres of Excellence (COEs)[6]



The Ministry of Textiles has updgraded existing and established new Centers of Excellence (COEs) for technical textiles under the Technology Mission on Technical Textiles (TMTT) launched by Ministry of Textiles in 2010 to cover 6 product-focused COEs and 2 process-oriented COEs. With ongoing collaborations with foreign institutes and laboratories, and wealth of experience and knowledge in the technical textile industry, these COEs are especially resourceful for industries considering diversifying into and in the Indian

[6] For more details on Centre of Excellence, please refer to our publication "Compendium on COEs" uploaded on http://technotex.gov.in/

technical textiles sector. The COEs thus play a significant role in enabling Indian industries to realize their potential in addressing demand and scaling attractive opportunities in each of the 12 technical textiles sub-segments.

Product-focused Centres of Excellence

Agrotex	Synthetic & Art Silk Mills Research Association (SASMIRA), Mumbai
Geotex	Bombay Textile Research Association (BTRA), Mumbai
Indutex	PSG College of Technology (PSG), Coimbatore
Meditex	South India Textile Research Association (SITRA), Coimbatore
Protex	Northern India Textile Research Association (NITRA), Ghaziabad
Sportex	Wool Research Association (WRA), Thane

Process-oriented Centres of Excellence

Composites	Ahmedabad Textile Industry's Research Association (ATIRA), Ahmedabad
Nonwovens	DKTE Society's Textile & Engineering Institute (DKTE), Ichalkaranji

a) COE on Agrotex

The Synthetic & Art Silk Mills' Research Association (SASMIRA) is a co-operative venture set up by the Man-made Textile Research Association (MANTRA) after independence as a multi-functional institute to serve its scientific and technological needs. SASMIRA was established on 12th January, 1950 after due recognition by the Council of Scientific and Industrial Research under the Ministry of Science and Technology, Government of India.

SASMIRA is engaged in various research and development projects in man-made textiles for apparel, industrial and defence applications. Considering the importance of this field SASMIRA had altered its focus towards technical textiles for the past ten years. Various products and processes have been developed viz. geotextiles, Agrotextiles, defence textiles, sport textiles, etc. a few of which have been patented also. Seminars, conferences and workshops are also conducted regularly at both national and international level, to cater awareness in emerging areas of technical textiles.

The Ministry of Textiles, Government of India has designated SASMIRA as a Centre of Excellence for Agrotex since March 2008. SASMIRA has fully equipped laboratories to carry out testing, evaluation and investigation of a variety of textile and allied materials, with specialized services for technical textiles. The laboratory is accredited nationally by NABL, India and internationally by A2LA, USA for Mechanical, Chemical and Microbiological testing of textiles and allied substrates. SASMIRA laboratories are also recognized by International Bureau for Standardization of Man-made Fibres (BISFA), Bureau of Indian Standards (BIS) and several Government agencies.

The COE, Agrotex assists the industry with training demonstration, apart from creating awareness and knowledge sharing. The textile entrepreneurs would be guided with help of project profiles on various agrotextile products and would also be provided standards and norms for processing.

b) COE on Geotex

The Centre of Excellence on Geotex was launched in 2008 in partnership with Bombay Textile Research Association (BTRA), and is supported by Ahmedabad Textile Industry's Research Association (ATIRA).

BTRA has established a new Geotex Laboratory with testing facilities to test Geotextiles, Geomembranes, Geocomposites, Gabions, Geosynthetic Clay Liner, Geogrids, Prefabricated Vertical Drain, etc. BTRA is also strengthening its information resources on Geotex by procuring various books and international test methods such as ASTM, INDA, EDANA, ISO, etc.

Apart from testing and development activities, BTRA also provides training to users and entrepreneurs in Geotex and other fields of technical textiles. The COE also offers technical consulting services to entrepreneurs, including DPR preparation, to support the establishment of new manufacturing facilities for geosynthetics.

c) COE on Meditex

A Centre of Excellence (CoE) for Medical Textiles has been established at SITRA under SGDTT and upgraded under TMTT promoted by Office of the Textile Commissioner, Ministry of Textiles, Government of India. Housed

within the main premises of the parent institution, since its inception in April 2008, the CoE will move to its new buildings – a sprawling 57760 sq.ft. complex – when the same gets ready by June 2013.

Among several of the activities pursued under the Centre of Excellence umbrella are skill development, consultancy assignments, preparation of detailed / bankable project reports for prospective entrepreneurs, creation of an Information Resource Centre that will house several books, journals, periodicals and back volumes, published national and international standards related to Medical Textiles together with very many number of samples procured from market sources as well as produced in-house.

The Centre of Excellence boasts of the best pilot plant facilities as well as state of the art laboratory test instrumentation to carry out development of prototypes and render full spectrum of incubation services to prospective entrepreneurs.

Standardization, in industrialized countries, is recognized as a powerful tool to increase productivity through interchangeability and reduction of variety and that, with enlarging volumes of trade among industrialized countries, Internationally accepted norms or standard is the need of the hour to support this development; as a demonstrable measure of this understanding, the Centre of Excellence has been at the forefront in preparing Draft Standards rich in their content and quality and is working in close association with the Bureau of Indian Standards to bring out these as published standards in lieu of their international counterparts.

Medical Textiles, being a sun-rise industry, the importance of Knowledge Dissemination for the benefit of business communities and aspiring entrepreneurs need not be over emphasized; with this in mind, seminars / workshops at several of the industrial clusters, including Tiruppur, Palladam, Bangalore and others, have been conducted benefitting some 640 participants in all.

With an objective of shaping Indian Textile Industry as a strategic player in the emerging sector of Medical Textiles, the Centre of Excellence is undertaking a wide gambit of activities aimed at lending comprehensive support to stakeholder enterprises, the fruits of which will surface more & more in times to come.

d) COE on Protex

The COE Protex was established by NITRA in association with IIT, Delhi under Scheme for Growth and Development of Technical Textiles (SGDTT), and is being upgraded under TMTT. NITRA's infrastructure facilities for quality evaluation include six NABL-accredited QC laboratories capable of analyzing materials as per IS, ASTM, DIN, BS, ISO, JASO, AADTCC, EN and other customized standards. NITRA's library and information centre have a stock of approximately 4,000 books, including 170 of NITRA's own publications. The COE also subscribes to 110 national and international journals. The library and information centre is available for textile industry professionals and associated individuals. NITRA is also an ISO-9001 certified textile research organization.

NITRA has established a Protex Laboratory with state-of-the-art testing instruments, such as flammability tester, limited oxygen index tester, contact heat tester, washing and dry cleaning cylinder, vertical & horizontal flammability tester, radiant heat transmission tester, vibroscope & vibrodyne, seam fatigue tester etc. The COE now also has a "Fire Testing Lab" to test textile and allied products for heat, flame and safety-related characteristics as per International and IS standards. NITRA also got NABL accreditation (NABL Accreditation Certificate Numbers: T-0852 & T-0853) in November' 2011 and has collaboration with Bolton University, UK in the fields of R&D, consulting and training.

e) COE on Composites

Ahmedabad Textile Industry's Research Association (ATIRA) has been designated as the Center of Excellence on Composites in the year 2012. ATIRA's stated objective is to develop advanced composites through new and innovative processes in order to achieve weight reduction, high mechanical properties and cost competitiveness. The COE is also committed to enhancing the knowledge base in composites through research, development and training.

ATIRA has established several testing laboratories, including a Mechanical Testing Laboratory, Design and Simulation Laboratory, and a Heat and Flame Testing Laboratory with state-of-the-art testing instruments. Additionally,

ATIRA received accreditation from North West Composites Center (NWCC) in Manchester, UK in January 2011. Additionally, ATIRA has identified NABL accreditation to be necessary. ATIRA has also conducted ongoing collaborations with Karlsruhe Institute of Technology, Fraunhofer ICT, and Fraser Institute in Germany for product and prototype design since August 2010.

ATIRA's Library and Information Centre has stock of over 70,000 books, reports and publications. ATIRA also has a well-established and renowned incubation center with equipment for developing prototypes for polyfiber-reinforced rope, testing carbon-fiber and glass-fiber products, as well as a nanofiber lab.

f) COE on Indutex

PSG College of Technology established in 1951 is one of the many educational institutions nurtured by PSG & Sons Charities Trust. The college is Government Aided, Autonomous, ISO 9001 2008 certified and affiliated to Anna University. Equipped with latest facilities and excellent infrastructures, the college offers a total of 48 full time and part time programs in Science, Engineering and Management at UG & PG levels. The institution has a strong alumni base, most of them occupying coveted positions in many educational, industrial and research organizations all over the world

The Department of Textile Technology, Fashion Technology and Automobile Engineering of PSG College of Technology is sanctioned in 2010 with CoE in Industrial Textiles by Ministry of Textiles under Technology Mission on Technical Textiles (TMTT) scheme with Rs.24.5 crores with an additional investment of Rs.15 Crores by the management for the infrastructure facility, out of this 20 crores is to be used for machinery and Testing equipment. This infrastructure is coming up in a sprawling campus at PSG Neelambur campus with a built up area of approximately 40,000 sq.ft.

The term 'Industrial Textiles' refers to a subgroup of a wider category of Technical Textiles, referring specifically to those textile products used in the course of manufacturing operations (such as filters, conveyor belts, abrasive substrates) or which are incorporated into other industrial products (such as electrical components, cables, flexible seals, acoustic and thermal insulation of industrial appliances).

The main objective of this COE is to build an infrastructure specifically for Industrial Textiles, which supports high quality research and industrial collaboration. It will provide a platform for the industry and for the new entrepreneurs to develop new products, standards development, upgrade their existing products, and utilize pilot scale facilities for rapid sample / prototype development. One of the many functions of the COE is to transfer the knowledge to the industry through organizing workshops, seminars and conferences.

g) COE on Nonwovens

The D.K.T.E. Society's Textile & Engineering Institute was founded in 1982. It is based in Ichalkaranji (popularly known as 'Manchester of Maharashtra') which is one of the prominent hubs of the decentralized textile segment. DKTE Society's Textile & Engineering Institute – Ichalkaranji is one of the premier textile engineering institutes in India, and has 8 departments, 175 full time academic staff and 2960 full time students.

DKTE is operating the Center of Excellence for Nonwovens under TMTT. The COE has established physical testing and manufacturing facilities and has made encouraging progress in developing prototypes and conducting incubation activities.

Activities of DKTE COE in Nonwovens:

- Testing
- Training
- Technology Business Incubation
- Rapid Prototyping
- Research & Development
- Consultancy and support for business start-ups

h) COE on Sportex

Wool Research Association (WRA) is a Textile Research Association established in 1963 by the woolen and worsted industry. Since last two decades, it had modestly engaged itself in the development of technical textiles. It had undertaken a few sponsored projects relating to Sportex, Indutex, Mobiltex, etc.

WRA was assigned the Center of Excellence for Sport textiles in 2012 and has already initiated several training activities and seminars. In the coming year, the COE will also obtain the requisite equipment for implementing testing and prototype development activities.

2.3 Textiles Parks

Following are the Technical Textile Parks being established in various states in India:

Textile Park	Location	Nature of Activities	Features/ Advantages
Pallavada Technical Textiles Park, Tamil Nadu[7] (Exclusive for technical textiles)	• The Project site is located 8 Kms from Gummidipoondi, Chennai at Tamil Nadu • The nearest airport is 40 Kms away at Chennai, the site very near to NH – 45 and Rail connectivity is through Chennai Junction. • The Nearest sea port is Chennai seaport 20 Kms from site.	The Pallavada Park is being built in an area of 72 acres in Tiruvallur district. It will have 14 Mobiltech units, 5 Buildtech units, 2 Agrotech units and 6 Hometech units along with facilities for R&D and quality testing labs.	• Centre of Excellence • Cheap Power, • Captive Power Project • Common Effluent Treatment Plant • Common Solid Waste Management & Disposal System • GRP Drains for Effluent • Treated Water Supply System • Uninterrupted Power Supply
Baramati Hi Tech Textile Park, Maharashtra[8]	• Baramati Hi-Tech Textile Park Ltd. (BHTPL) was set up over sprawling 60-acres of land.	The establishment of BHTPL also aimed at economization of the production costs. The park has set up ultra modern common facility	• Baramati Hi-Tech Textile Park offers state-of-the-art infrastructure

[7] C.S. Architects Pvt Ltd, "Pallavada Technical Textiles Park," http://www.csapl.co.in/download/ProposalForTextileParks.pdf, accessed on 9 January 2013

[8] Sunetra Pawar, "Baramati Hi-Tech Textile Park Ltd," SunetraPawar.info,

Textile Park	Location	Nature of Activities	Features/ Advantages
	• BHTPL is situated in MIDC region of Baramati about 100 kms from Pune in Maharashtra State. • BHTPL consists of a comprehensive group of textile oriented units specializing in functions such as Garmenting, Apparel Printing & Packaging, Home Furnishing, Embroidery and Technical textile within the Textile Park. • It also has a series of smaller units available as ancillary support units.	center which includes a training centre for training of all women employees, bank extension counter for various banking needs, R&D and Quality Centre for designing of world class products and meeting global quality standards, and an innovative creche within the campus.	• Also makes available local, skilled and trained labour. • The Park provides a common Effluent Treatment Plant (ETP) to process industrial sewage • Also has a Solar Power generation unit for generating solar electricity.
Gujarat Eco-Textile Park, Gujarat[9]	• Good connectivity • Based in Existing Textile Hub – Surat • Availability of labour and water • Natural Gas and Effluent Disposal Point	The Gujarat Eco Textile Park in Surat, Gujarat is one of the first eco-textile parks in India with specific focus on environmental issues. The Park provides excellent infrastructure and facilities to enable the industry in reducing the input costs and meeting the regulatory and trade related compliances with respect to quality, environment and social standards thereby improving their competitiveness to achieve rapid progress in every activity of their business.	• Cheap Power, Captive Power Project • Common Effluent Treatment Plant • Common Solid Waste Management & Disposal System • GRP Drains for Effluent • Treated Water Supply System • GPCB norms are addressed • Centre Of Excellence • Common Laboratories (Quality, Environmental, Physical and Chemical) • Design Studio (CAD Centre) • Conferencing & Meeting Facilities • Training Centre • Consultant House • Library • Exhibition Hall

[9] Gujarat Eco-Textile Park," GETP website, http://www.getp.in/, accessed on 9 January 2013

Textile Park	Location	Nature of Activities	Features/ Advantages
Jaipur Tex Weaving Park Ltd. (JTPL), Rajasthan[10]	• The park has total area of 94.50 Acres with total investment expected in the park to be US$ 45.45 million with expected total employment of around 12000 (direct and indirect) at Silora in Rajasthan • Located on National Highway No. 8, nearly 100 Kms. from Jaipur and 7 kms. from Kishangarh, along the golden quadrilateral • Proximity to the processing center of Bhilwara, renowned as Manchester of Northern India • Situated in project influence area of Delhi-Mumbai Industrial Corridor (DMIC)	• Weaving (600 looms, 5.5 cr. mts/year) • Sizing (5 units, 4.4 cr. mts/year) • Stitching (43 lacs pieces/year) • No. of Entrepreneurs: 51 • Complete weaving solutions incorporating sizing and weaving on Airjet and Rapier machines of single and double width	• Forward integration by way of garmenting, made up and accessory units • Unique marketing opportunity through a separate company - JTPL Texmart, dedicated for the park to establish forward linkages in contemporary global scenario • JTPL is formulated under Public-Private partnership framework • JTPL is to facilitate the entrepreneurs to compete internationally by collectively synergizing on a cluster approach • JTPL is to facilitate the units to meet international environmental and social standards • JTPL is managed by Board of Directors backed by vast experience in running Textile units for last 40 years • JTPL would be equipped with state-of-the-art machines manufacturing Textile products like Home Furnishings, Suiting, Shirting, etc., with capacity to diversify
Technical Textile and Machinery Mega Project, Bellary, Karnataka[11] (Exclusive for technical textiles)	Bellary district of Karnataka	With support from Ministry of Handloom and Textiles, Government of Karnataka, Technical Textiles and Machinery Mega project is being planned with estimated investments of US$ 18.18 million.	

[10] "Jaipur Texweaving Park Ltd," JTPL website, http://www.jtplindia.co.in/, accessed on 9 January 2013

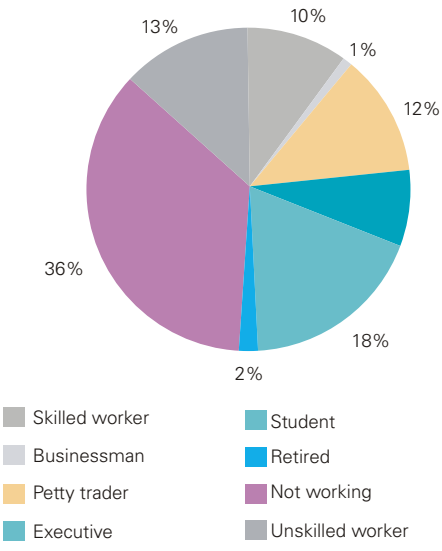
[11] Department of Handlooms & Textile, Government of Karnataka

2.4 Skill set availability

India has over 500 universities, as well as more than 30,000 colleges and 7,000 technical institutions. Approximately 4.2 million people are added to India's talent pool every year, with 4 million graduates and 0.26 million post-graduates[12].

The Indian technical textile industry employed 1.1 million people in 2011-12, 25% higher than employment of 0.88 million in 2009-10. Skilled manpower composes approximately 55% of the total manpower employed in technical textile industry[13].

Distribution of population by occupation



Source: CMIE, MOSPI

The introduction of new technologies necessitates and creates promising opportunities for training seminars to address skill gaps of textiles technologist and operators. In today's dynamic business environment, the demand for trained manpower with requisite competencies for manufacturing quality products efficiently with sophisticated machines is a recognized need across sectors, but especially in rapidly-evolving industrial domains like technical textiles.

Government of India has implemented several initiatives to address the rising demand for skilled manpower in the technical textiles sector. Scheme for Growth and Development of Technical Textiles (SGDTT), Technology

[12] Doing Business in India, Ernst & Young, 2012

[13] Baseline Survey of the Technical Textile Industry in India, Office of the Textile Commissioner, March 2009

Mission on Technical Textiles (TMTT) include components for sponsoring training workshops and technology through the COEs for technical textiles.

Furthermore, Government of India also launched Integrated Skill Development Scheme (ISDS) for the textiles and apparel sectors, including jute and handicrafts in July 2010 with the objective of building capacities of institutions providing skill development and training in the textiles sector. This scheme is in line with the National Skill Development Policy, which targeted training 10 million persons by the year 2022 in the textiles sector. The scheme proposes implementation by leveraging existing institutional strength and training experience within the Ministry by dual mode:

a. Component-I: Utilizing the training institutes within the Govt. sector

b. Component-II: Private sector participation through a PPP Model

Activities include courses for basic training, skill upgrade and entrepreneurship development in all textile sectors including technical textiles.

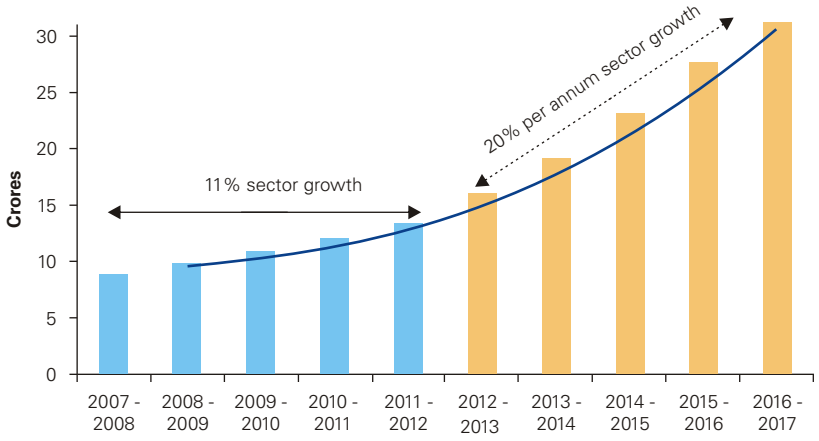
Furthermore, several stakeholders in the technical textile industry have also initiated efforts to promote the development and training of personnel in the sector. Following bodies have some of the leading technical textile related training facilities:

a. Textile Research Association

S. No	Name	Location
1.	Northern India Textile Research Association	Ghaziabad, Uttar Pradesh
2.	Ahmedabad Textile Industry Research Association	Ahmedabad, Gujarat
3.	Bombay Textile Research Association	Mumbai, Maharashtra
4.	The South India Textile Research Association	Coimbatore, Tamil Nadu
5.	Synthetic and Art Silk Mills' Research Association	Mumbai, Maharashtra
6.	Wool Research Association	Thane, Maharashtra
7.	Indian Jute Industries' Research Association	Kolkata, West Bengal
8.	Man-Made Textiles Research Association	Surat, Gujarat

S. No	Name	Location
1.	DKTE Society's Textile & Engineering Institute	Ichalkaranji, Maharashtra
2.	PSG College of Technology	Coimbatore, Tamil Nadu
3.	The Bannari Amman Institute of Technology	Coimbatore, Tamil Nadu
4.	RVS College of Engineering	Coimbatore, Tamil Nadu
5.	The Technological Institute of Textiles and Sciences (TITS)	Bhiwani, Haryana
6.	Institute of Chemical Technology	Mumbai, Maharashtra
7.	Govt. College of Engineering & Textile Technology	Serampore, Hooghly, West Bengal
8.	College of Textile Technology	Behrampur, Murshidabad, West Bengal
9.	Uttar Pradesh Textile Technology Institute	Kanpur, Uttar Pradesh
10.	Giani Zail Singh College of Engineering & Technology	Bathinda, Punjab
11.	Dr B R Ambedkar National Institute of Technology	Jullundhar, Punjab
12.	Manikya Lal Verma Textile and Engineering College	Bhilwara, Rajasthan
13.	Institute of Textile Technology	Cuttack, Orissa
14.	Department of Technology and Engineering, Maharaja Sayajirao University of Gujarat Baroda	Vadodara, Gujarat Sarvajanik College of
15.	Sarvajanik College of Engineering & Technology	Surat, Gujarat
16.	L.D. College of Engineering, Navarangpura	Ahmedabad, Gujarat
17.	Anuradha Engineering College	Buldana, Maharashtra
18.	Veermata Jeejabai Technological Institute	Mumbai, Maharashtra
19.	College of Engineering & Technology	Akola, Maharashtra
20.	Kumaraguru College of Technology	Coimbatore, Tamil Nadu

With the implementation of schemes and incentives proposed in the 12th FYP and continuation of existing schemes, the technical textiles sector is expected to grow at 20% per annum. Assuming the growth in employment corresponds directly with growth in the industry, the employment in the technical textiles sector is expected to exceed 3 million by 2016-17



Source: Ernst & Young Analysis

2.5 Raw material availability

Technical Textiles are manufactured from a variety of fibres and filaments based on the desired properties of the end product. The fibres and filaments can be broadly classified as natural and man-made.

Natural fiber	Man Made Fibres and Polymers	
	Synthetic fiber	High performance fiber
• Cotton	• Viscose	• Aramid
• Silk	• Polyamide	• UMHW Polyethylene
• Sisal	• Polyolefin	• Carbon
• Flax	• Flax	• Glass, etc.
• Wool, etc.	• Polyester, etc..	

Natural fibres

While India is a rich source of natural fibres, the requisite fibres for technical textiles are domestically available in ample supply. The natural fibres predominantly used in technical textiles include:

a. Cotton

b. Jute

c. Silk

d. Coir

Man-made fibres and polymers

Man-made fibres (MMF) and man-made filament yarns (MMFY) account for around 40% share of the total fibre consumption in the textile industry as a whole. These fibres form a key raw material for the technical textile industry because of their customizable properties. The key man-made fibres, filaments and polymers used as raw materials in technical textiles are:

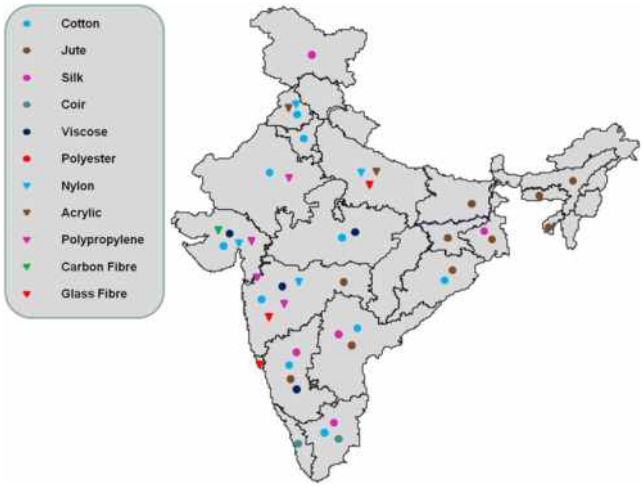
a. Man-made fibres and filaments
   - Viscose
   - Polyester
   - Nylon
   - Acrylic/Modacrylic
   - Polypropylene

b. Polymers
   - HDPE
   - LLDPE
   - LDPE
   - PVC

India ranks among one of the world's largest producers of MMF and MMFY, with production of 1284.64 million kg and 1549.80 million kg in 2010-11, respectively. While production of MMF and MMFY registered growth of

1.31% and 1.78%[14], respectively, over the previous year alone, the last decade has witnessed a steady increase in production and consumption of major synthetic fibres and polymers, resulting in a fair degree of self-sufficiency in the domestic MMF and MMFY markets.

The following map shows the spread of various raw materials across different states in the country.



- "The Cotton Corporation of India,": Cotton Corporation of India Limited website, http://cotcorp.gov.in/marketing-faq.aspx#ans10, accessed on 17 December 2012
- "State wise production and raw jute," Office of the Jute Commissioner website, http://jutecomm.gov.in/statewise%20P%20&%20R%20jute.htm, accessed on 17 December 2012
- Ministry of Textiles, "Final Report - National Fibre Policy, Sub-Group on Silk," Ministry of Textiles website, http://technotex.gov.in/Revised_Final_Report_-_Baseline_Survey_of_Technical_Textile industry_in_India.pdf , accessed on 17 December 2012
- "Annual Report, 2007-08," Ministry of Micro, Small and Medium Enterprises website, http://msme.gov.in/Chapter 6-Eng_200708.pdf , accessed on 17 December 2012
- Office of the Textile Commissioner, "Baseline survey of the technical textile industry in India," Ministry of Textiles, Technical Textiles website, March 2009, http://technotex.gov.in/Revised_Final_Report_-_Baseline_Survey_of_Technical_Textile industry_in_India.pdf, accessed on 17 December 2012

[14] "Man-made Fibre and Filament Yarn industry," Ministry of Textiles, Government of India website, 11 April 2012, http://texmin.nic.in/sector/sector_mmf_mmfy.pdf, accessed on 16 December 2012



3

STANDARDS FOR TECHNICAL TEXTILES INDUSTRY

3 Standards for Technical Textiles industry

Guiding production processes and defining product quality measures, standards provide a valuable framework for manufacturers in the technical textiles sector. Standards for technical textiles are especially vital due to their critical applications in infrastructure, life-saving applications, personal protection material, etc. Indian standards that align with international standards for products manufactured and used in India will improve the marketability of the products, and will also enable manufactures to envisage efficient production processes that will improve profit margins.

The development of standards is an ongoing and multi-phase process that requires monitoring, prioritizing and formulating standards for industry:

Identification of Standards

Identification and formulation of standards are among the most important activities of all COEs for Technical Textiles industry. All COEs have initiated the process for identifying existing and required standards for the products that correspond with their respective segments. Though Bureau of Indian Standards (BIS) is entrusted with the responsibility of publishing standards, the relevant COEs for Technical Textiles prepare the initial drafts of the proposed standards.

Once recognized by BIS, the draft standards are circulated to industry, users and academicians for modifications towards final entrusted draft.

Government Interventions

Bureau of Indian Standards (BIS) is the empowered organization in the country for notifying standards. In order to expedite the process of standards' notification, Office of Textile Commissioner constituted Committees for Standards for each of the eight Centers of Excellence(COEs), viz Geotex, Agrotex, Meditex,

Protex, Composites, Non wovens, Indutex and Sportex. With the directors of the COEs convening their respective committees, these committees formulate the draft standards in their respective segment, which are forwarded to BIS for further action.

These committees encourage and invite participation from industry stakeholders in the development of standards in the technical textiles industry. Interested entrepreneurs, manufacturers of technical textiles and other stakeholders can participate in the process of standards formulation by suggesting the products for which standards are required and helping the committee in drafting the standards. Interested companies can send their requests and proposals to Office of Textile Commissioner for participation in the standards committee.

Standard Notification

The Standards Committee formed at the Office of Textiles Commissioner, Ministry of Textiles, Government of India formulates drafts standards and submits the same to BIS from time to time. Many of the standards proposed and formulated by the Standards Committee have been notified and circulated by BIS in the recent past. Standards recently notified by BIS in last three quarters are as under[15]:

[15] For more details on Standards, please refer to our publication "Compendium on Standards" uploaded on http://technotex.gov.in/

S. No	Standards number	Title
1.	IS 16008:2012	Agro Textiles - Shade Nets for Agriculture and Horticulture Purposes Specification:
2.	IS 15758 (Part3): 2007	Protective clothing Part 3 Resistance of materials to penetration by liquids
3.	IS 15891 (Part 1): 2011	Test method for non-wovens - Part 1 Determination of mass per unit area
4.	IS 15891 (Part 2): 2011	Test method for non-wovens - Part 2 Determination of thickness
5.	IS 15891 (Part 3): 2011	Test method for non-wovens - Part 3 Determination of tensile strength and elongation
6.	IS 15891 (Part 4): 2011	Test method for non-wovens - Part 4 Determination of tear resistance
7.	IS 15891 (Part 6) : 2012	Test Methods for non-wovens - Part 6 Absorption
8.	IS 15891 (Part 7) : 2012	Test Methods for Nonwovens Part 7 Determination of Bending Length
9.	IS 15891 (Part 8): 2012	Test Methods for Nonwovens Part 8 Determination of Liquid Strike - Through Time (Simulated Urine)
10.	IS 15891 (Part 9): 2012	Test Methods for Non-wovens Part 9 Determination of Drapability including Coefficient

Proposed government initiatives

Recognizing the technical and economically sensitive usage of technical textiles, Ministry of Textiles, Government of India has approved a scheme with total outlay of US$ 0.5 million in 12th FYP to support BIS in hiring consultants to assist in standard formulation and notification for technical textile products. This initiative will standardize manufacture of technical textile products in India and enable product quality equivalent to leading international products.

Regulating Standards

Standards are the first step towards ensuring regulatory use of technical textile products. The establishment of standards for key technical textile products will provide Indian authorities a foothold in moving towards a regime of mandatory usage regulation. The user industry, which is largely dependent on imports for such products, will also be able to ensure the quality of manufactured products. This will create a pull for technical textile products and lead to the overall development of the sector.

The strong enforcement of regulated standards will unleash several opportunities in the technical textiles industry that will provide mutual benefits to stakeholders, such as:

- Trade facilitation
- Support in technical aspects of societal and environmental policies, which will also contribute to sustainable development
- Offer the same level of consumer protection across mature and evolving economies
- Allow products to be supplied and used across different markets, thus enhancing the market access opportunities for small enterprises
- Harness and disseminate new and advanced state-of-the-art technology and innovative practices
- Provide tools for assessing conformity and for enhancing confidence in products, systems, processes, services or personnel



4

POLICY FRAMEWORK

4 Policy framework

The Government of India has extended a host of policies and incentives to the technical textile industry to encourage growth in the sector. These incentives are provided by Central Government as well as by some progressive states anchoring the textile sector.



Mr Sujit Gulati
Joint Secretary, Ministry of Textiles
Government of India

India offers great economic opportunities for global investors…

India is a country that presents itself as having the highest growth rate in Technical Textiles sector.

For any global investor, India represents not only an economic opportunity from the perspective of a huge domestic market, but also as a hub for manufacturing for international demand. Many domestic and multinational companies have found that to be the case in the recent past. India's strength in attracting investment is primarily a result of offering a level playing field for domestic and international investors.

The Government has been promoting Technical Textiles Sector, through many ways such as establishment of Centre of Excellences; providing conducive business environment; awareness; training; empanelling consultants and supporting industry to increase indigenous development, etc.

During 12th Five Year Plan, Government has planned very focused initiatives related to sector growth and development, making India the first most favored destination for investments.

I welcome all potential investors to India to become a part of Technical Textiles growth story and "If you're not here, you might miss a great opportunity".

4.1 Government policies /schemes for promotion of Technical Textiles

Ongoing Schemes

a. Technology Mission On Technical Textiles (TMTT):

Aim: Improvement of basic infrastructure in terms of testing facilities, lack of market development support, skilled manpower, R&D, improved regulatory measures, preparation of specifications and standards for technical textiles, etc.

Main components of the scheme: To attain the desired aim, Government has launched TMTT with two mini-missions for a period of five years (from 2010-11 to 2014-15) with a fund outlay of US$ 36.36 million, as under:

I. Mini Mission-I (Financial outlay US$ 28.36 million):

- Upgrade of existing four COEs: The existing COEs will be upgraded in line with new COEs, i.e. with incremental facilities like incubation centres and development of prototypes and provision for appointment of consultants. (Fund allocation US$ 10.18 million)
- Setting up of four new COEs in Composites, Non-Wovens, Indutex and Sportex (Fund allocation US$ 18.18 million)

II. Mini Mission-II (Financial outlay US$ 4 million)

- Support for Business Start Up (Fund allocation US$ 0.55 million)
- Fund support for organizing workshops/ seminar (Fund allocation US$ 0.91 million)
- Support for Contract Research (Fund allocation US$ 2.00 million)
- Market development support for sale to the institutional buyers (Fund allocation US$ 2.73 million)
- Identification of regulations required for promotion of technical textiles (Fund allocation US$ 0.91 million)
- Support for domestic & export market development of technical textiles (Fund allocation US$ 0.91 million)

Target and expected outcomes:

I. Mini- Mission I:

- Setting up of 4 COEs in the field of Non woven, Composites, Indutex & Sportex
- Upgradation of existing 4 COEs covered under SGDTT

II. Mini- Mission II:

- 30 business start up projects

- 52 workshops to sensitise stakeholders
- Social compliance through standardization regulatory measures: in segments, viz. Geotex, Agrotex, Meditex, Protex
- Market development support through 30 buyer seller meetings
- 50 units to be assisted under Market development support for export sales
- Fund support for 20 contract research projects

Performance of the scheme under 11th Five Year Plan

- 4 Centres of Excellence (COEs) for Non-Wovens, Indutex; Composites and Sportex were established
- 4 COEs for Geotex, Agrotex, Protex and Meditex were upgraded as a one stop shop for Technical Textiles
- More than 24 awareness programs have been organized in association FICCI,CII, ICC, COEs, ROs etc
- More than 10 buyer seller meets (BSM) have been organized
- More than 26 companies have received approval from Office of Textile Commissioner under Market development Support for export sales
- 9 proposals have been registered with Office of Textile Commissioner under Contract Research component, which are under screening and evaluation
- 5 consultants have been empanelled to provide business start-up support to the industry

b. Technology Upgradation Fund Scheme (TUFS)

All technical textile machinery is covered under the Technology Upgradation Fund Scheme (TUFS). In the modified TUFS applicable from 01-04-2007, specified technical textile machinery has been provided with additional benefit in terms of 10% capital subsidy in addition to 5% interest reimbursement.

c. Concessional custom duty for specific Technical Textile Machinery

Major machinery required for technical textiles has been placed in the

concessional custom duty list of 5% of list 46, Notification No. 21/2002-CUS of Customs Tariff.

d. Focus Product Scheme (FPS) 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. The details of technical textile products covered under the scheme are given at Annexure – I.

e. Other Government initiatives

a) 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.

b) Under Integrated Skill Development Scheme (ISDS), it is proposed to train 22,000 personnel in technical textile sector during the year 2010-11 & 2011-12.

c) FDI is permitted through automatic route without any limit on the extent of foreign ownership for in-bound investments in the textile sector. Thus, there is no restriction on any amount of FDI, with or without local partners. Government incentives are equally applicable to FDI units.

Proposed schemes during 12th Five Year Plan

For the 12th FYP, five new Schemes have been proposed by the Ministry with focus as under:

a. Scheme for Usage of Geotextiles in North Eastern Region (Fund allocation – US$ 90.91 million (INR 500 Crs)

Aim: The aim of the scheme is to promote and utilize Geotextiles 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 Geotextiles in existing or new projects in road, hill and slope protection, water reservoirs and river bank erosion control.

Main components of the scheme: It is proposed that in the project period (5 years), roads in the NE may be constructed with Geotextiles. Similarly, vulnerable river banks may be protected by Geotextiles, hill slope/embankment slope, water reservoirs spread over the NE region may be taken up for stabilization with Geotextiles. The Projects would be identified in consultation with the State-Governments & concerned Stakeholder Agencies. The funding under this scheme will be undertaken for 2 major components:

i. Application of geotextiles solutions including onsite installation (US$ 77.64 million)

ii. Sensitization activities, market studies, on-site testing, training and capacity building, etc. (US$ 11.45 million)

Target and expected outcomes:

- Increased consumption of Geotextile products in the NE region
- Expansion of the sustainable market of geo-textiles in hill/ soil protection, river bank erosion control, water reservoir solutions and road construction in NE Region of India.
- Awareness on use of quality certified Geotextile products in the NE region
- Study on the performance of various types of geo-textiles through field trials complemented by laboratory tests, and simulation modelling, development of specifications and design methodologies for field application in the areas of soil erosion control (river bank protection and hill slope management), water reservoir and road construction
- Cost-benefit analysis, development of capacities amongst the State Governments (& other agencies), and dissemination of project results to the end users and the stakeholders

b. Scheme for usage of agro textiles in North Eastern Region (Fund allocation – US$ 10 million (INR 55 Crs))

Aim: The aim is to utilize Agrotextiles in improving the horticulture and floricultural produce of the NE states. With increasing acceptability of Agrotextiles, entrepreneurship in the area of agrotextiles production in the country will get an impetus. The growth of usage of Agrotextile products in the country will thus benefit both agriculturists as well as textile entrepreneurs in the country.

Main components of the scheme: It is proposed that in the project period (5 years), Agrotextiles will be utilized to improve the horticulture and floricultural produce of the Northeast states by providing technological and financial support for establishing the demonstration centres and disburse Agrotextile-Kit with overall fund outlay of US$ 10 million.

The proposed scheme's project targets will be with respect to following two components:

i. Creating awareness, setting –up of Demonstration Centre and developing capacities

ii. Provide/disburse Agrotextile-Kit in the NER states

Target and expected outcomes:

- Increased consumption of Agrotextile products in the country and boosting Agrotextiles production and investment synergies
- Improved yield of horticulture and floriculture produce from the North-East region of the country in terms of Quantity as well as Quality of produce
- Awareness on use of quality certified agrotextile products in the country
- Demonstration centers depicting the benefit of usage of Agrotextile products suitable for the region
- Study on the performance of various types of agrotextiles laboratory tests and simulation modeling for their influence on control of environmental factors like soil, temperature, heat and light and also the plant growth

- Cost-benefit analysis to the cultivators on usage of these products and develop Capacities amongst the State Governments and other agriculture agencies

c. Scheme for strengthening of database and standards for technical textiles (Fund allocation – US$ 1.86 million (INR 10.25 Crs)

Aim: 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.

Main components of the scheme:

Following are the objectives of each component of the scheme:

a) Component 1 - Baseline survey for Strengthening of database of technical textile industry: The aims 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 fields of Technical Textiles in India.

b) Component 2 - Identification of HS codes for technical textile items: To monitor and track trade trends in technical textile sector

c) Component 3 - Standards for technical textiles: To standardize manufacture of technical textile products in India and enable product quality equivalent to leading international products.

d) Component 4 - Export Market Intelligence: To build knowledge repository pertaining to technical textile exports that will empower Indian exporters in making informed decisions about the market potential for their products across the globe.

e) Component 5 - Study to generate data on hospital-related infections: To increase awareness of utility of disposable medical textiles, and encourage consumption of medical textile products.

Target and expected outcomes: The scheme will result in creation of a database and will provide knowledge that will help in taking policy decisions at the Ministry level and business decisions by various investors. Formulation of standards will help in developing manufacturing, quality and usage guidelines and promote growth and development of the industry.

d. Special Incentive Package Scheme for speciality fibres (Estimated fund requirement - US$ 36.36 million (INR 200 Crs))

Aim: For strengthening the raw material base for Indian technical textile industry, a special incentive package to enable Indian / foreign companies to set up manufacturing facilities for identified speciality fibres is proposed with special incentives of upto 20% on capital expenditure.

e. Setting –Up of Revolving Funds for Providing Assistance to Entrepreneurs for R & D (Estimated fund requirement – US$ 9.09 million (INR 50 Crs)

Aim: A collaborative programme of MOT could be launched in association with Financing Agency like SIDBI to support the indigenization needs of the technical textile industry for innovative technological development

4.2 State specific policies for promoting Technical Textiles

Several states in India have been proactive in promoting the technical textiles sector in the country. States like Gujarat, Tamil Nadu, Maharashtra, Karnataka, Andhra Pradesh, Rajasthan, Madhya Pradesh and Punjab have especially witnessed some success in this effort.

Contributing 25% to the national technical textile industry, **Gujarat** is a major player in the national technical textile sector. Gujarat's nearly 900 technical textile units are engaged in each of the 12 subsectors of technical textiles, and the state is a key producer of commodity products for the technical textile and downstream industries. Key players in the state's technical textile industry include, Ginni Filaments Ltd, Ambika Polymer, Anjani Udyog Pvt Ltd, Reliance Industries, Supreme Nonwovens Pvt Ltd, etc. The state also houses several international firms, like Finnish firm Ahlstrom, American Hygienics Corporation, and Austrian firm TenCate Geosynthetics.

Gujarat is also making significant progress in driving innovation in the national technical textile sector. Several companies are developing unique technical textile products, such as Sanrhea Technical Textile Ltd with the production of nylon chafer cloth for tyres, Tuflex India with the production gabious and geo-membranes, APCO industries and the production of fibre glass battery separators, etc. Additionally, Gujarat is a leading manufacturer in the textiles, automobiles, chemical, metallic, and food products, each of which consumes several of the various technical textile segments. Several of

the state's units are also key suppliers to India's defence sector; Digjam Mills, Jamnagar provides fire-resistant fabric, while Kusumgar Supported Units, Advance Multitech, and Valley Valvette supply several varieties of coated fabrics. With a manufacturing sector that drives over 27% of its economy, the demand and consumption of technical textiles in the state is among the highest in the country.

Tamil Nadu, in turn, is also a fast-growing epicenter of technical textiles in the Indian peninsula. The state is one of the leading producers of agrotextiles, medical technical textiles, sport technical textiles, nonwovens. Coimbatore is also home to one of the country's eight Centers of Excellence for technical textiles, COE: Meditex (SITRA), which specializes in medical technical textiles. Furthermore, the state's investor-friendly environment has enabled the development of textile parks dedicated exclusively to technical textiles. The Government of Tamil Nadu approved the establishment of US$ 21.30 million technical textile park in Pallavada, which is expected to commence production in 2013. Furthermore, a 200-acre US$ 27.30 million technical textile zone was planned to be established in Tirupur, Tamil Nadu in 2008.

Maharashtra is providing significant stimulus to the domestic technical textiles industry. Maharashtra is a key producer of agrotextiles, woven technical textiles, ropes and cordages, Indutex, and coir fibre. Key industries located in Maharashtra include Malmo Exim Ltd, Kwality Nets, B&V Agro, etc. Significantly, the state is also driving the research and development in the national sector by hosting four of the country's eight Centers of Excellence on technical textiles, COE: Geotex (BTRA), COE: Agrotex (SASMIRA), COE: Non-wovens (DKTE), and, COE: Sportex (WRA).

The state's technical textile sector has also attracted significant investment interest. The state is developing its first technical textiles park in Ichalkaranji, which hosts a large number of stakeholders in the entire textile value chain, with an investment of US$ 20 million. Furthermore, the manufacturing conglomerate, Jindal Group, recently announced plans to establish a technical textile unit with an investment of US$ 272.30 million in Nashik; the unit will produce textiles related to automobile, sports, security, medical and fire-fighting equipment

Karnataka is a growing player in the Indian technical textiles sector. Karnataka's technical textiles sector attracted investments of US$ 104

million between 2008 and 2011, and has targeted additional investments of US$ 154 million in the sector between 2011-2012 and 2012-13. During the state's Global Investor Meet 2012, held from June 6-8, 2012, the state attracted US$ 891 million in investments in its textile sector alone; these investments included proposals for the establishment of two technical textile mega projects for US$ 60 million and US$ 18.2 million in Hassan SEZ and Bellary, respectively. Additionally, the state will also promote technical textiles as a focus sector in its new industry-friendly textiles sector, which is scheduled to be launched in January 2013.

Rajasthan is yet another state charting new frontiers in the national technical textiles sector. The state is a renowned leader in the global textiles sector, and is now encouraging the growth of technical textiles to advance its leadership throughout the textile value chain. Bhilwara has especially emerged as one of the largest manufacturing centres for viscose-polyester textiles. Rajasthan State Industrial Development and Investment Corporation Ltd (RIICO) even organized a seminar in September 2010 to highlight the opportunities for Rajasthan to become a national and global leader in the technical textiles domain.

Andhra Pradesh is a leading producer in the agrotextiles sector, and is a leading consumer in Protex and Mobiltex. A hub for the national textile, aerospace and defense industries, the state is an especially important consumer of Indutex and Protex products.

Punjab is also proving to be a promising market for Indian Sportex manufacturers. The state hosts amongst India's largest sports industries, and is a key supplier to the Indian Raffia, ropes and cordages industries. Thus, with significant, growing demand for sport technical textiles, and ready supply of downstream industries in the technical textile value chain, the state demonstrates significant potential for the development of a vibrant and thriving industry for sports technical textiles.

Madhya Pradesh is another state that is demonstrating promising growth in the technical textiles sector. The positive industrial environment created by the state through numerous initiatives and a stable government, good infrastructure and connectivity with all major parts of the country make it very conducive for the technical textiles industry.

The above eight states' industrial, MSME, and textile policies have been instrumental in driving the growth of the technical textiles industry not just locally, but throughout the country. Specific incentives of these state's policies have been included below as a reference point both for investors looking to realize and execute their interests in India's technical textiles sector, but also for administrators and policy-makers of other states looking to promote the local docile technical textiles sector.

Incentives\ States	GJ	TN	MH	KA	AP	RJ	PB	MP
Infrastructure								
Land	✔	✔		✔	✔	✔	✔	✔
Electricity/Power	✔	✔	✔	✔	✔	✔	✔	
Fiscal								
Stamp duty exemptions		✔	✔	✔	✔	✔		
Interest subsidy	✔		✔	✔				✔
Entry tax exemptions				✔		✔		✔
Venture capital funding	✔		✔					
VAT/CST/SGST exemptions		✔		✔	✔	✔	✔	
Capital investment subsidies		✔	✔	✔	✔	✔		✔
Research and Development								
Patent and quality certification	✔	✔		✔	✔	✔		✔
Technology development and upgrade	✔	✔	✔	✔		✔	✔	✔
Human Resource Development								
Skill development	✔			✔	✔	✔		✔
Employment		✔	✔	✔		✔		
Trade								
Export subsidies				✔		✔		
Import subsidies			✔					
Other								
Sick unit rehabilitation	✔		✔					
Energy and water conservation	✔	✔		✔	✔	✔		

A. Gujarat

The state's Industrial Policy – 2009 aims to achieve holistic development across the industrial and social realms by facilitating investments, generating and enhancing employment, and adhering to high-quality standards. The state is placing special emphasis on the development of Special Investment Regions that seek to converge the state's industrial, social, and urban infrastructure. The Delhi-Mumbai Industrial Corridor (DMIC) has witnessed significant activity in this regard, while the State Government is planning to develop Ahmedabad-Dholera Special Investment Region, Petroleum, Chemical and Petrochemical Investment Region, and Gujarat International Finance Tech City, along with other knowledge corridors and integrated townships through both Public-Private Partnership and Viability Gap Funding models.

The government is also focusing on driving growth of megaprojects in focus sectors, like auto and auto components, ship building and ship repairs, semi-conductor fabrication and nanotechnology application, and MROs for aircrafts. The state is promoting a cluster-based approach through scheme assistance for the development of industrial clusters for MSMEs. The scheme not only emphasize soft interventions like capacity-building through marketing, quality improvement and technology upgrade initiatives, but also focuses on interventions, like development of common infrastructure and facilities, like incubation centers, ITI extension centers, CFCs, and other need-based facilities. The state and central governments will extend financial assistance to cluster development for a period of three to five years, along with providing assistance to nodal institutions and experts, constitute a Cluster Advisory Initiative (CAI), and provide partial financial assistance for Last Mile Connectivity.

Government of Gujarat also intends to provide special thrust to the textiles and apparels sectors to enable the state's industry to achieve global reach and recognition in international markets.

- Strengthen the value chain
    - Build expertise in the entire value chain to foster comprehensive and inclusive development

- Create forward and backward linkages to encourage farmers to grow the necessary raw materials
- Engage professional designers to transform the raw material into finished fabric and produce textiles and garments that align with demands in domestic and international markets.
- Identify and fill missing links in value chain: Facilitate all the necessary steps, such as increased R&D in the area of textile/fabric development, design development, adoption of new production techniques, strategic tie ups with premier design institutes, etc

- Offer credit-linked financial support through interest subsidies to spinning, weaving, knitting, apparel and machine carpeting sectors
- Support technical textile manufacturing activity to make Gujarat a hub for production of technical textiles
- Support technology acquisition and upgrade
- Support establishment of Ginning/Weaving/Knitting/Technical Textile/Apparel Park under GIDB structured scheme in PPP mode with Viability Gap Funding. Government-owned land will continue being owned by a public entity.

Specific incentives for MSMEs under the state's, "Scheme for assistance to Micro, Small and Medium Enterprises," under the aegis of the Gujarat Industrial Policy 2009 are highlighted below. Assistance will be given only once under each category in a five-year period unless otherwise specified in the specific category of incentives. For the same investment, assistance or benefit can be availed under only one category. The unit that has received assistance under this GR will not be entitled to avail benefit of any other State Government Scheme, unless specifically specified otherwise

Gujarat MSME Scheme	
Infrastructure	***Land acquisition***
	• Large units producing raw materials and promoting auxiliary MSME units to be encouraged to develop industrial parks for accommodating minimum 20 units
	• Assistance of 20% of infrastructure cost excluding land cost subject to maximum US$ 0.18 million
	• Facilitation in purchase of land for the industrial park
Fiscal	***Interest subsidy***
	Eligibility
	• All MSMEs will be eligible as per definition of MSME for setting up a new unit, or for expanding, diversifying, or modernizing an existing unit. The plant and machinery to be installed should be new with modern state of the art technology
	• Units availing term loan from any bank or a financial institution approved by RBI within one year of the loan disbursement, or by the end of the first instalment, will be eligible for benefits under this scheme
	• Unit will have to observe pollution control measures as prescribed by GPCB or other competent authority
	• Unit will have to remain in production for 5 years from the date of commercial production
	• Unit will have to furnish information regarding production, employment, etc, whenever asked by the Government
	• Unit will have to employ at least 85% of the total employment and 60% of supervisory and managerial employment from local persons

Gujarat MSME Scheme	
	• Sick units will not get benefits under this category *Benefit* • Interest Subsidy of 7% for micro enterprises and of 5% for small and medium enterprises • 1% additional interest subsidy to youth having less than 35 years of age in case of first project. Woman entrepreneurs will be accorded priority • Maximum amount of interest subsidy will be US$ 0.05 million per annum, for a period of five years • Interest subsidies for units availing term loan will be paid to the Bank/FI with intimation to the unit • Disbursement will start only after the unit starts commercial operation *Breach of eligibility:* • If the unit becomes defaulter in repayment to a bank or financial institution, such default period will be deducted from the period of five years • If the unit defaults in paying any Government dues, it will not get assistance under this category ***Venture Capital Funding*** • Total funding of US$ 1.82 millionwill be earmarked during the operative period of the scheme to promote venture capital funding for MSMEs and projects that adopt innovative technologies, like Technical Textiles, NanoTechnology,Information Technology, Bio-Technology, etc • The Government will provide funds to financial institutions and banks that have the necessary expertise in operating Venture Capital Funds
Research and development	***Quality certification*** • Assistance will be granted to the eligible MSMEs for maximum 3 quality certifications, at the rate of

Gujarat MSME Scheme

50% of cost of quality certification with an overall ceiling of US$ 0.01 million in 5 years. The cost for certificate will include:

- Fees charged by certification agency(excluding travel, hotel and surveillance charges)
- Cost of testing equipments as suggested by BIS
- Calibration charges of equipment
- Consulting fees and training charges (excluding travel, hotel and surveillance charges)

Technology acquisition fund

- Assistance for acqusition of appropriate technology in any form to a group of at least 10 MSMEs for a specific product / process will be provided by way of 50% grant subject to a maximum of US$ 0.18 million er technology including royalty payments for first two years

Suppot to R&D Institutions

- Need-ased support will be provided to R&D institutions set up with the State Government support, including setting up of new R&D institution, Testing facilities, incubation center etc. The assistance will be upto 60% of the project ost excluding land cost & building cost
- Assistance for Contract/ Sponsored research work from any industrial unit / Industry Association to recognized R&D Institution/ technical colleges approved by AICTE, will be considered @ 50% of project cost, excludig cost of land and building, subject to maximum US$ 0.09 million

Patent assistance

- Assistance of 50% of necessary expenditure for obtaining domestic patents by any industrial unit or institution subject to maximum of US$ 18,181

Gujarat MSME Scheme	
	• Quantum of assistance can be enhanced to US$ 0.05 million for international patents by a company • Fees paid to patent attorney and patent service centre will be eligible (excluding travel, hotel charges) • Maximum five patents per unit over a 5 years period will be eligible
Human resource development	***Skill development*** • 50% of fees, subject to maximum US$ 90.91 per person for a minimum one week duration training of skill upgradation in MSMEs in a programme conducted in institutions suggested by an Anchor Institute or specialized institution in specific sector will be reimbursed. The minimum batch size for such training assistance should be 25 trainees
Sick unit rehabilitation	• Subsidy of 50% on cost of diagnostic study by technical institution initiated through FI/Bank/Government for maximum of US$ 1,88.82 • Registered Experts in the field of technology, marketing and finance may be engaged to advise sick units. 50% fees (maximum US$ 1,88.82 per unit) will be reimbursed on implementing suggestions given by such registered expert • Interest subsidy @ 5% per annum limited to US$ 0.02 million per year for three years on additional finance for rehabilitation, disbursed by Bank or financial institution • One Time Settlement (OTS) on a graded scale for Government dues as well as dues towards Government/Corporations/ Boads for which a separate Government Resolution (GR) will be introduced

Gujarat MSME Scheme	
	• Other units taking over a sick unit for rehabilitation will be eligible for assistance as above
Other	***Energy and water conservation***
	• 50% cost of energy and water audit conducted in a unit by a recognized institution/ consultant subject to a limit of US$ 454.55 will be reimbursed to the MSME
	• Group of units/cluster will be given priority
	• In addition, assistance of 20% of cost of equipment subject to maximum US$ 0.02 million per project will be considered during a period of five years
	Market development support
	• Assistance to MSMEs for packaging design from recognized institutions at 50% of the cost subject to maximum US$ 3,636.36 once in a period of five years
	• Assistance to MSME units for participation in International Trade Fairs outside India @ 50% of total rent, literature and display material subject to maximum US$ 9,090.91 once in one country in five years
	• The unit should not participate in an individual capacity, but only as a part of the Industry Association that is participating in such trade fairs. The assistance would be by way of reimbursement.
	• Assistance to Industry Associations @ 50% of total rent subject to maximum US$ 0.02 million for participation in international trade fair as Gujarat Pavilion outside India for participation of minimum 5 units in a form of reimbursement
	• Viability gap support to Industry Associations for organizing national seminars/exhibitions in Gujarat,

Gujarat MSME Scheme

subject to maximum US$ 7,272.73 and for organising international seminar/exhibition in Gujarat subject to maximum US$ 14,545.45

- Assistance for setting up of Convention Centre/Trade centre by Industry Associations @50% of project cost upto US$ 0.91 million excluding land cost once in a period of 5 years

Support for vendor development

- Support for vendor development on the line of PPP model wherein parent unit is to contribute minimum 5% for prototype/new product development besides technical support and commitment for procurement guarantee for 3 years.
- Vendor unit will be eligible for interest subsidy as per the present scheme.
- Parent unit will be supported to develop industrial parks with assistance @ 20% of infrastructure cost excluding land cost subject to maximum US$ 0.18 million
- New or existing medium and large units can be considered as parent units to support development of a minimum of ten vendor units for new product or prototype development for eligibility.

Cluster development in PPP mode

- Anchor units, nodal institutions and/or industry associations will be associated with a PPP-based programme for cluster development
- Comprehensive support to strengthen cluster units in a programme covering product design and technology, quality improvement, energy & water conservation, common branding and marketing facilities, hiring of an expert /cluster development agent, setting up of demonstration plant, common facilities, incubation centre, CFC, ITI extension centre and other need based facilities

Gujarat MSME Scheme

- Assistance of 80% (including assistance from Government of India) in the proposed cost of programme with a ceiling of US$ 1.82 million per cluster for a period of 3 to 5 years
- Assistance to nodal institutions/hiring of experts should not exceed 3% of project cost.
- Cluster Advisory Institution (CAI) to be constituted.
- Clusters will be eligible for partial financial assistance as available under the Scheme of Critical Infrastructure.
- Assistance will be subject to preparation, by the project owners, of a Comprehensive Development Plan of the cluster for 5 years

Awards to best MSMEs

- Separate awards to be given for Micro, Small and Medium category
- Three awards to be awarded in each category.
- Growth in production and profit
- Quality and Environment improvement measures.
- Innovation in technology for new product or process development
- Award in the form of US$ 1,818.18, cash and appreciation letter
- Awardees to be given priority in participation of international seminars and incentives under the scheme
- Independent Credit Rating agency to be appointed to select the best performing MSMEs in the above categories
- Nominations to be encouraged from industries associations

Source: Scheme for assistance to Micro, Small and Medium Enterprises (MSME), Resolution No. MSM/102009/5928/I, Industries and Mines Department, Government of Gujarat

Overall, the industrial policy outlines the state's roadmap for promoting the development of the technical textiles sector. The state's textile policy, launched in 2012, provides more specific guidelines for achieving this growth and development. The textile policy announced a new scheme for technical textiles known as, "Credit-linked Interest Subsidy in Technical Textiles." The scheme addresses 13 sub-segments in technical textiles

- Agrotex
- Buildtex
- Clothtex
- Hometex
- Indutex
- Meditex
- Mobiltex
- Oekotex
- Packtex
- Protex
- Sportex
- Defensetech
- Any other products notified by Ministry of Textiles, Government of India

Specific incentives for encouraging the growth of the state's technical textile industry under the textile policy include:

Gujarat Textile Policy	
Fiscal	***Credit-linked interest subsidy*** • Technical textiles-focused enterprises that have received term loans from financial institutions or a bank recognized by the Reserve Bank of India, and whose loans are disbursed between 2012 and 2017, are eligible for applying for an interest subsidy from the Government of Gujarat within the first year of the loan disbursement. Subsidy will be available to new and existing enterprises expanding, modernizing, or

diversifying in the field of technical textiles through investments in new and modern plant and machinery, as specified under the TUF scheme of Government of India.

- Maximum interest subsidy of 6% p.a. will be offered in addition to any other incentives available from Government of India. The subsidy will be available only on the interest levied by the financial institution for a period of five years, or for the loan repayment period, whichever is earlier.
- Enterprises that have acquired second-hand imported machinery with vintage of 10 years, and with a residual life of a minimum of 10 years, duly certified by a competent authority like Chartered Engineer or Chartered Accountant, will be considered eligible for support under the scheme to the extent of 60% of the acquisition value of imported machinery. Acquisition value of the second-hand machinery shall be less than 50% of the value of newly-imported machinery. Support against the second-hand machinery will be given only after the successful operation of the machinery for a period of 6 months.
- The interest subsidy will be given to the enterprise that pays regular instalments and interest to the financial institutions. A defaulting enterprise will not get interest subsidies for the default period, which will be deducted from the five-year period. Penal interest or other charges will not be reimbursed.

Other

Assistance for energy conservation, water conservation and environmental compliance to existing units

- Applicable to units over three years old, the scheme provides the following benefits once in two years during the operating period of the scheme:
  - Up to 50% to a maximum of US$ 909.09 for energy audit, water audit, and environmental compliance

- Up to 20% of cost of equipment to a maximum of US$ 0.04 million

Assistance for technology acquisition and upgrade

- Applicable to enterprises acquiring technology for specialized application for the first time in India. The acquisition of technology can be in any form, including purchase of drawing and design and technology development through engagement of experts, R&D institutions, and/or a technical consultancy firm. Mere import of technology will not be considered technology acquisition.
- Existing Gujarat-based textile machinery manufacturers can also avail the benefit of technology collaborations from abroad.

Support for establishing textile and apparel park

Eligibility

- Any industry association, industrial house, cooperative society, or institution registered under the Societies Act, Partnership Act, or the Companies Act or any government body like GIDC shall be eligible to avail assistance under the scheme as the developer of the park.
- The part must have provision for the location of minimum 20 manufacturing and/or service enterprises (maximum 25% of service and allied enterprises)
- Only the expenditure incurred for development of infrastructure within the park area shall be considered for assistance. Cost of infrastructure facilities shall include development of internal roads, power lines, communication facilities, water distribution line, water augmentation facilities, sewage and drainage lines, effluent treatment and disposal facilities, storage facilities, common and other facilities centers, as

required in industrial parks.

- The promoter/developer shall commit to hold at least 20% equity in the project and shall operate and maintain the park.
- Expansion, modification, or modernization of existing industrial park will be ineligible for benefits under the scheme.

Benefits

- The park will be provided financial assistance of up to 50% to a maximum limit of US$ 1,818 million of the total project cost for establishment of common infrastructure facilities, including the cost of land
- Developers of such parks will also be eligible for one-time stamp duty exemptions on purchase of land required for the new park, along with the first purchasers of an individual unit within these parks. Stamp duty exemption certificates will be issued after approval of the SLAC
- The developer of the park availing incentives under this scheme will not be eligible to avail incentives under any other schemes of the State Government, unless specified otherwise. However, the enterprises established in the park will be eligible for incentives under separate schemes of the State Government

Breach of eligibility

- The construction of infrastructure facilities of the sanctioned project should be completed within a period of 3 years from the date of approval of the project by State-level Approval Committee (SLAC).
- Failure to complete the construction of the infrastructure within a 3-year period will result in the recovery of the stamp duty and will render the project ineligible for financial assistance

Gujarat Textile Policy
• Promoters and developers will suffer the recovery of benefits sanctioned, disbursed, or reimbursed amount as arrears of land revenue if found not maintaining and operating the park.

Source: Gujarat Textile Policy, iNDEXTb

For further information, contact:

Industries and Mines Department, Government of Gujarat:
http://www.imd-gujarat.gov.in/index1.html

B. Tamil Nadu

The Industrial policy 2007 of Tamil Nadu envisions creating 2 million jobs by 2011, increasing the contribution of the manufacturing sector to GSDP, substantially increase the state's exports, achieving a position of eminence in innovation and high technology, and raising the competitiveness and efficiency of Small and Medium Enterprises. The state plans to implement the policy through a consultative mechanism, infrastructure development (Public Private Partnership, water, railways, ports, roads), Industrial Parks and Special Economic Zones, Human Resources and Skill Development, Energy Efficiency and Technology Upgradation and Catalysing Innovation.

The state created a special task force on industrial development chaired by Hon'ble Chief Minister to provide a forum to facilitate inputs from industry for development of policies. Additionally, to ensure an adequate supply of developed land for high-technology industries and startups, the State has also identified a land bank of 10,000 acres for industrial parks to create quality infrastructure facilities, including social infrastructure like skill development centres, housing, business centres, restaurants, financial services, schools and hospitals. 20% of the area in industrial parks and SEZs promoted by State Industries Promotion Corporation of Tamil Nadu Ltd (SIPCOT) and Tamil Nadu Industrial Development Corporation (TIDCO) will be reserved for SMEs, including SME vendors to major industries in the same parks.

Furthermore, TIDCO is also encouraging Public-Private Partnership projects to facilitate investments into industrial infrastructure, like roads, industrial

parks, and Special Economic Zones. Government of Tamil Nadu has already initiated several steps to upgrade infrastructure facilities in all industrial clusters, including water supply, power, communication facilities, roads, railways, etc. in order to improve the competitiveness of industries in the State.

Incentives available under the Tamil Nadu Industrial Policy 2007 are highlighted in the table below. Eligibility criteria for these incentives are as under:

- New manufacturing facilities set up in any district other than Chennai, Thiruvallur and Kanchipuram with an investment in eligible fixed assets of over US$ 45.45 million in a period of 3 years would be eligible for a structured package of incentives to be decided on a case-to-case basis, with due weight to investment, employment and potential for attracting further investment through vendors and ancillaries. In case of Chennai, Thiruvallur and Kanchipuram districts, this minimum investment will be US$ 63.64 million
- New manufacturing facilities set up by an existing company in a new site or in an adjacent vacant site within existing facility for manufacturing a product already being manufactured in the existing unit or an entirely new product, would be treated as a new unit for the purpose of incentives under the policy, subject to the production volume/value in the older unit being preserved
- Expansion projects within the existing manufacturing facility of an industry with an investment in eligible fixed assets of over US$ 45.45 million in a period of 3 years would be eligible for a structured package of incentives to be decided on a case-to-case basis, subject to preservation of existing production volume/value, in case of districts other than Kanchipuram, Thiruvallur and Chennai. In case of Chennai, Thiruvallur and Kanchipuram districts, this minimum investment will be US$ 63.64 million
- Existing industrial units in existence in Tamil Nadu for over 10 years will be given suitable extra benefits for expansion projects over and above normal structured package of incentives, subject to investing minimum levels of investment mentioned above

- New or expansion manufacturing facilities with investments in eligible fixed assets over US$ 272.73 million will be treated as super-mega projects and eligible for incentives over and above the normal structured package of incentives.

Tamil Nadu Industrial Policy

Infrastructure ***Stamp duty exemptions for Land***

- There will be no stamp duty levied in respect of transfer of lands acquired by Government or alienated by Government to State Agencies or their subsidiaries for promotion of industrial park
- Stamp duty exemption on lease or purchase of land meant for industrial use to the extent of 50% would be available for all manufacturing industries setting up new or expansion units with an investment in eligible fixed assets of more than US$ 0.91 million in private industrial parks
- Manufacturing units setup in SIPCOT industrial parks would be eligible for 50% exemption from stamp duty on lease or sale of land meant for industrial use as well as on lease of new ready built factory buildings irrespective of location

Power

- A back-ended State Capital Subsidy and Electricity tax exemption on power purchased from TNEB or generated and consumed from captive sources would be sanctioned for all manufacturing units, based on employment and investment in eligible fixed assets made within 3 years, irrespective of location
- New units investing between US$ 0.91 million and US$ 9.1 million and employing more than 100 direct workers would be eligible for a capital subsidy of US$ 0.05 million and electricity tax exemption for 2 years from the date of commercial production

Tamil Nadu Industrial Policy	
	• New units investing between US$ 9.1 million and US$ 18.2 million and employing more than 200 direct workers would be eligible for a capital subsidy of US$ 0.11 million and electricity tax exemption for 3 years from the date of commercial production • New units investing between US$ 18.2 million and US$ 36.4 million and employing 300 direct workers would be eligible for a capital subsidy of US$ 0.18 million and electricity tax exemption for 4 years from the date of commercial production • New and expanding units investing over US$ 36.4 million and employing more than 400 direct workers would be eligible for a capital subsidy of US$ 0.27 million and electricity tax exemption for 5 years from the date of commercial production • Manufacturing units located within a SIPCOT industrial park or SIPCOT SEZ will be provided an additional 50% capital subsidy over and above the eligible limit ***Effluent Treatment Plants*** • Dedicated Effluent Treatment Plants (ETP) and/or Hazardous Treatment Storage and Disposal Facility(HWTSDF) set up by individual manufacturing units would be eligible for an Environment Protection Infrastructure subsidy of US$ 0.05 million or 25% of capital cost of setting up such ETP/HWTSDF, whichever is less
Research and Development	***Patent and quality certification*** • 50% of the cost of filing a patent or US$ 3,636, whichever is less, would be provided to technology innovators or stand alone R&D units or individuals for innovations capable of industrial application. The support will be available for filing the patent

Tamil Nadu Industrial Policy	
	application in India or abroad, cost of registration and first time maintenance fee of the granted application
	Technology development and upgrade
	• Capital goods to be used in setting up hi-technology R&D centres would be exempted from entry tax and VAT would be zero rated. Such capital goods shall not be used for commercial production and be used exclusively for R&D
	• Technology parks focused on R&D would be treated on par with Information Technology Parks for purpose of applicable incentives, including FSI norms, etc

Source: The Industrial Policy 2007, Industries Department, Government of Tamil Nadu

Incentives available under the Tamil Nadu Micro, Small and Medium Industries Policy 2008 are highlighted below:

Tamil Nadu MSME Policy	
Infrastructure	***Land***
	• State Industries Promotion Corporation of Tamil Nadu Ltd., (SIPCOT) will allot up to 20% land in all new and expansion schemes undertaken by SIPCOT to MSMEs to promote ancillarization. In estates developed by Small Industries Development Corporation (SIDCO) in the XI Plan period, up to 30% of the area will be reserved for Micro Enterprises, with allotment not exceeding 15 cents
Fiscal	***Stamp duty exemptions***
	• Enterprises in SIDCO or Government developed estates for Micro and Small Enterprises sectors are entitled to 50% rebate on stamp duty and registration at the time of original allotment, based

on the transfer value fixed by SIDCO or Government in respect of such estates. In respect of Micro and Small Enterprises set up in industrially backward areas, the 50% rebate on stamp duty and registration would be reimbursed after commencement of production

- Entrepreneurs in privately developed estates will be entitled to 50% rebate on stamp duty and registration at the time of original allotment based on the guideline value
- Micro Manufacturing Enterprises will be exempted from payment of stamp duty on mortgaged and pledged documents.

Capital investment subsidy

- A back-ended interest subsidy at the rate of 3% (subject to a maximum of US$ 18,181 per enterprise over a period of five years) will be extended on loans taken up to US$ 0.18 million by Micro, Small and Medium Enterprises for modernization by induction of well established and improved technologies in specified sub-sectors / products as listed in the guidelines on Credit Linked Capital Subsidy Scheme (CLCSS) Scheme of Government of India

Value-added tax exemptions

- All Micro Manufacturing Enterprises will be entitled to a subsidy equal to the assessed Value Added Tax (VAT) paid by them for the first six years after commencement of production. The total subsidy entitlement over the period would be upto the value of investments made in plant and machinery at the time of allotment of an Entrepreneur Memorandum (EM) number (Part 2) by the District Industries Centres

Tamil Nadu MSME Policy	
Research and development	***Technology development and upgrade*** • Government will provide support to Mini Tool Room projects to be taken up by any Industrial cluster /Association at the rate of 25% of the project cost, subject to a ceiling of US$ 0.18 million in strategic locations based on demand. • In addition the Government will also provide support to establish Common Facility Centres to be set up by Industrial clusters / Associations at the rate of 25% of the project cost, subject to a ceiling of US$ 0.18 million in strategic locations, based on demand. • Small developmental projects undertaken at the behest of MSME Association by IIT-Madras, Universities in the State including Deemed Universities, Engineering Colleges, Polytechnics, and Central Government Institutions of Excellence in the State for evolving cleaner and / or energy efficient or IT-enabled technologies for the Micro, Small and Medium Manufacturing Sector will be eligible to receive support of up to US$ 4,545 or 50% of the project cost, whichever is less. the project should have the prior approval of the Industries Commissioner and Director of Industries and Commerce • Technology Development Fund will also fund 50% of the cost of the conduct of 100 operational efficiency studies required by entrepreneurs of micro manufacturing enterprises every year on a first come first served basis ***Patent and trade mark registration*** • 50% of the cost of filing a patent or US$ 3,636.36, whichever is less, would be provided as subsidy to Micro, Small and Medium manufacturing

	enterprises having in-house or stand alone R & D Laboratories for innovations capable of industrial application. The support will be available for filing the patent application in India or abroad, cost of registration and first time maintenance fee of the granted application • Similarly 50% of the cost of application for Trade Mark registration or US$ 454.55, whichever is less, would be provided as subsidy to Micro, Small and Medium manufacturing enterprises for filing the application for Trade Mark registration in India or abroad, cost of registration and first time maintenance fee of the granted application
Human resource development	***Skill Development*** • Reimbursement of up to 50% of the tuition fees of special short term courses run with prior approval of the Industries Commissioner and Director of Industries and Commerce by the MSME Associations for the benefit of the educated unemployed in collaboration with any reputed institution in the State. • Reimbursement of 50% of the tuition fees of short term training organized by MSME Associations to upgrade the skills of existing employees of Micro, Small and Medium manufacturing Enterprises.
Sick unit rehabilitation	• The outstanding sales tax / VAT and the interest on the same (as on the date of orders of the Empowered Committee sanctioning the package) may be converted into a soft loan. The loan will be repayable from the start of the fourth year onwards over four years on an equated monthly instalment basis with an interest

of 9%. There will however be no interest charged for the first three years on the loan.

- Sanction an interest subsidy of 4% for two years on rehabilitation/bridge loans upto US$ 0.03 million advanced to micro and small enterprises as a part of the rehabilitation package.
- Determining the outstanding interest on sale tax / VAT, (as on the date of the order of the SLRC) and recommending remission of the same by Government in the case of a enterprise considered non viable and incapable of being rehabilitated within the band of concessions allowed by the policy.

Other

Marketing support

- Price preference of 15% will be extended for purchase of goods of domestic Micro and Small Enterprises as provided in the Tamil Nadu Transparency in Tenders Act, 1998
- A grant of 50% of expenses incurred on hall rent (subject to a ceiling of US$ 9,000 (Rs.5 lakhs) per event in Chennai and US$ 1,818 per event in Districts) will be sanctioned on reimbursement basis for sponsoring of exhibitions by MSME Associations
- A grant of 50% of the hall rent (with a ceiling of US$ 9,091 per exhibition) will be sanctioned on reimbursement basis for participation in exhibitions in other States by MSME Associations of Tamil Nadu
- MSME Development Organization will provide funding support of up to 90% in respect of to and fro air fare for participation by MSE Entrepreneurs in overseas fairs / trade delegations. The scheme

Tamil Nadu MSME Policy
also provide for funding for producing publicity material (upto 25% of costs) • Support will be structured in project mode to clusters of enterprises to market their products under a common banner or brand. • Price preference of 15% will be extended for purchase of goods of domestic Micro and Small Enterprises as provided in the Tamil Nadu Transparency in Tenders Act, 1998 • Waiver of Earnest Money Deposit will continue for Micro and Small Enterprises • Scheme for setting up Sub-Contracting Exchange (One time grant for procurement of hardware and thereafter matching grant on tapering basis at 50%, 30% and 10% of running expenses, not exceeding US$ 2,272.73, US$ 1,363.64 and US$ 454.55, respectively during the initial three years, subject to a ceiling of US$ 2,854.55 per exchange. • MSME - Development Organisation by Micro and Small Enterprises for sanction of assistance under the ISO 9000/ISO 14001 Certification Reimbursement Scheme (Incentive Schemes of Reimbursement of expenses for acquiring Quality Management System (QMS) ISO 9000 certification/environment management (EMS) ISO 14001 certification to the extent of 75% or US$ 1,363, whichever is lower).

Source: Micro, Small and Medium Industries Policy 2008, MSME Department, Government of Tamil Nadu

For further information, contact:

Industries Department, Govt of Tamil Nadu:
http://www.tn.gov.in/departments/industries.html

Handicrafts, Handloom, and Textile Department, Govt of Tamil Nadu:
http://www.tn.gov.in/departments/hhtk.html

C. Maharashtra

The State's economic reforms emphasize structural changes and fiscal incentives for the industrial promotion and balanced regional growth. This has coincided with increasing global competition and rapid technological changes, which pose new challenges for industry. The Industrial, Investment and Infrastructure Policy 2006 therefore aims at ensuring sustainable industrial growth through innovative initiatives for development of key potential sectors and further improving the conducive industrial climate in the State to provide the State's industries a global competitive edge.

The aforementioned policy has especially identified textiles as a thrust area for the state. The state's comprehensive textile policy aims to create world-class infrastructure, state-of-the-art technology and upgrade technology skulls through appropriate training programs.

Specific incentives under industrial policy

Maharashtra Industrial Policy

Infrastructure

Electricity duty exemption

- Eligible new units in C, D, and D+ areas and No-Industry District(s) will be exempted from payment of Electricity Duty for a period of 15 years. In other parts of the State, 100% Export Oriented Units (EOUs), Information Technology (IT) and Bio-Technology (BT) units will also be exempted from payment of Electricity Duty for a period of 10 years.

Taluka/Area Classification	Monetary ceiling limit (US$)	Maximum period in years
A	-	-
B	-	-
C	18,181.82	4
D	36,363.64	5
D+	45,454.55	6
No Industry District	63,636.36	7

Maharashtra Industrial Policy

Fiscal

Industrial promotion subsidy

- New SSI/MSI/LSI units: The quantum of subsidy will be linked to the Fixed Capital Investment. Payment of IPS every year will be equal to 25% of any Relevant Taxes paid by the eligible unit to the State or to any of its departments or agencies. The quantum of benefit and period will be as follows:

Taluka/Area Classification	Ceiling as % of fixed capital investment		Number of years	
	SSI	MSI/LSI	SSI	MSI/LSI
A	-	-	-	-
B	20	-	6	-
C	30	20	7	5
D	40	25	8	6
D+	50	30	9	7
No Industry District	60	35	10	8

- Expanding units: Existing SSI/MSI/LSI (including IT/BT) units making additional investment to the extent of 25% or more over the Gross Fixed Capital investment, as on the last date of the previous financial year, for expansion, diversification or modernization, will also be eligible to get the Industrial Promotion Subsidy equivalent to 75% of the incentives admissible for new units. The admissible period for availing the subsidy will be reduced by one year in the respective category and area
- The eligible SSI units coming up in Industrial Clusters / Parks to be notified by the State Government and in Agro-based Industries, Textiles, Auto & Auto components, Electronic products, Pharmaceuticals and Gems & Jewellery, Services - Information Technology, I.T. enabled services, Biotechnology sectors in "C", "D", "D+" areas only will be eligible for the IPS applicable to the one step higher incentive category

Maharashtra Industrial Policy	
	Interest subsidy • All new eligible units in textile, hosiery, knitwear and readymade garment sector units in the SSI sector will receive interest subsidy. The Interest Subsidy will be payable only on the interest actually paid to the Banks and Public Financial Institutions on the term loan for acquisition of fixed capital assets, equal to the interest payable at 5% per annum ***Exemption of payment of Royalties/NA charges*** • Units in MIDC areas/Cooperative Industrial Estates will be exempted from payment of Non Agricultural Assessment Charges ***Stamp duty waiver*** • The 100% exemption from Stamp duty will be extended up to 31st March 2011 in "C, D, D+ Talukas and No Industry Districts. However, in A and B areas, 50% stamp duty exemption will be available to mega projects ***Seed capital assistance*** • Under the Seed Money Scheme, the educated unemployed youths are getting seed money assistance between 10% to 22.5% of the project cost limited to a maximum of US$ 18,181.82 for starting self-ventures from the Directorate of Industries as margin money. The seed money assistance carries interest @ 10% p.a. with a rebate of 3% for prompt payment. At present penal interest @14% is charged on delay in payment of the seed money dues.
Research and development	***Technology development and upgrade for SMEs*** • 5% subsidy on capital equipment for technology upgradation limited to US$ 0.05 million

Maharashtra Industrial Policy	
	• 50% subsidy on the expenses incurred for quality certification limited to US$ 1,818 • 25% subsidy on cleaner production measures limited to US$ 9,091 • 50% subsidy on the expenses incurred for patent registration limited to US$ 9,091
Human resource development	***Special incentives for units established in low-HDI districts*** • New units setting up facilities in notified districts (Gadchiroli, Yavatmal, Jalna, Nandurbar, Washim, Dhule, Nanded, Osmanabad, Buldhana, Chandrapur) and employing at least 75% local persons as defined in the Employment of Local Persons Policy will be offered 75% reimbursement of expenditure on account of contribution towards Employees State Insurance (ESI) and Employees Provident Fund (EPF) Scheme for a period of 5 years. However these benefits will be limited to 25% of FCI
Sick Unit Rehabilitation	***Revival of sick units*** • Viable SSI sick units defined by RBI will be offered rescheduled arrears of Government duesas well as electricity charges. They will beranteda period of five years for repayment and ill be offered oncessional interest rate @7% pa. The sanction of this facility will be linked to the sanction of rehabilitation program by the concerned financial institution/bank The sick MSI/LSI units registered with BIFR hat have beenapprovedfor revival packageswill also be eligible for concesional interest rate of 7% p.a

Maharashtra Industrial Policy	
Trade	***Refund of Octroi/Entry Tax in lieu of Octroi*** • Octroi based incentive will continue to be offered by way of refund of Octroi Duty/Entry Tax etc. An eligible unit, after it goes into commercial production, will be entitled to Refund of octroi duty, or any entry tax or account based cess levied by the micipal bodies in lieu of octroi and paid to the local authority on import of all the items required by the Eligible Unit. This incentive will be admissible in the form of a grant restricted to 100% of the admissible Fixed Capital Investment of the Eligib Unit for a period of 5/7/9/12 years respectively in the B/C/D/D+ areas. In respect of No Industry District reas, however, the period will be 15 years ***Octroi Exemption on Raw Materials*** • 100%exemptionn he octroi payable on all raw materials used by unis in Municipal Corporation areas for manufacture of products to be exported out of the limits of the Municipal Corporationsis being proposed

Source: Industrial, Investment, and Infrastructure Policy 2006, Department of Industries, Energy and Labour, Government of Maharashtra[16]

Specific incentives under textile policy

Maharashtra Textile Policy	
Fiscal	***Capital Subsidy*** • 10% capital subsidy to new textile units in Marathwada, Vidarbha and North Maharashtra under the Textile Policy for 2011-2017 • Original project cost eligible for interest subsidy under the Centrally sponsored TUF Scheme only shall be considered.

[16] The State has designed a new Industrial Policy, which will be released only in 2013

- The said 10% capital subsidy shall be in addition to all the benefits available from all sources [i.e. Centrally sponsored TUFS, Industries Department's policy etc.] including the assistance in respect of interest subsidy available under the new Textile Policy of the State.
- Project of Marathawada, Vidharbha & North Maharashtra sanctioned and set up under the centrally sponsored TUF scheme within the period of the issuing date of this Government Resolution to 31st March. 2017 are eligible.
- Projects sanctioned under the centrally sponsored TUF scheme from the date of issuing this Government Resolution till the date 31.3.2017.
- The 10% capital subsidy scheme will not be applicable to projects of modernization/ expansion of existing textile units.

- 10% Capital Subsidy for modernization of existing powerloom unit belonging to Scheduled castes/Tribes and minority communities Under the Textile Policy- 2011-2017.
  - Projects eligible for 10% capital subsidy:
    - Projects of Scheduled Castes:-
      - Projects of Scheduled Castes on private or co-operative basis.
      - If it is a private project, at least 80% of the shares in the project should be held by members of scheduled castes.
      - If the project is on co-operative basis, at least 80% of the members in the co-operative society should belong to the schedule castes.
    - Projects of Scheduled Tribes:-

- Projects of Scheduled Tribes on private or co-operative basis.
- If it is a private, at least 80% of the shares in the project, should be held by members of Scheduled Tribes.
- If the project is on co-operative basis, at least 80% of the members in the co-operative society should belong to the scheduled tribes.

- Projects of Minorities:-
  - Projects of minority communities on private or co-operative basis.
    - If it is a private project, at least 80 % of the shares in the project should be held by members of minority communities.
    - If a project is on co-operative basis at least 80% of the members in the co-operative society should belong to the minority communities.
    - There will be no ceiling on investment in a project. However, 10% capital subsidy will be payable on the amount of long term loan admissible for the purpose of the interest subsidy under the centrally sponsored TUFS.
    - The said 10% capital subsidy will be in addition to all the concessions available from all sources (i.e. the centrally sponsored TUFS, the Industry Department of State etc.) and the concessions in respect of interest subsidy available under the state's textiles policy, 2011-17.

Interest subsidy

- Interest Subsidy to new textile, hosiery and knitwear SSI units: New textile, hosiery and knitwear small-scale industries setting up in different parts of the Start will also be eligible for Interest Subsidy on the interest actually paid to the financial institution/bank on the term loan for creating fixed capital assets,

equal to the interest payable at 5% per annum as stated in the table below. The monetary ceiling will be applicable for the complete period of eligibility.

Taluka/Area Classification	Monetary ceiling limit (US$)	Maximum period in years
A	-	-
B	-	-
C	18,181.82	4
D	36,363.64	5
D+	45,454.55	6
No Industry District	63,636.36	7

- Scheme of interest subsidy on long-term loans linked to the Centrally sponsored TUF scheme: For the purpose of this scheme, either 12.5% or Banks' prime lending rate or the rate of interest actually charged, whichever rate is less, will be taken as applicable rate of interest. The benefit under the said scheme will be admissible for newly set up textile units in the State as well as modernization/ expansion/ rehabilitation of existing textile units.
  - The State will provide financial assistance in a manner that effective rate of interest payable by the eligible units will be 0% or 2%. Taking into account assistance from all the sources (Centrally Sponsored TUF Scheme, industrial policy of the State etc.)
  - The units to be charged 0% and 2% rate of interest are as under :-

S. No.	0% rate of Interest	2% rate of Interest
1.	All eligible textile units in Vidarbha, Marathwada, North Maharashtra, Konkan and D+ Industrial Areas	Private cotton mills in areas other than Vidarbha, Marathwada, North Maharashtra, Konkan and D+ Industrial Areas.

Maharashtra Textile Policy		
S. No.	**0% rate of Interest**	**2% rate of Interest**
2.	Garmenting in the entire State.	
3.	New Powerloom Industries based on modern technology in the whole State.	Private Processing Units.
4.	Modernization of Powerlooms in the whole State.	Private Knitting units.
5.	All types of silk projects in the entire State.	
6.	All eligible textile units in the cooperative sector.	

- Projects eligible for interest subsidy scheme:
  - Projects sanctioned on or after the date 1.4.2011 under the Centrally sponsored TUFS but excluding the jute industry in Para 7[I]C in the Government Resolution dated 28 April, 2011 in respect of Centrally sponsored TUFS.
  - Textile units set up in the State of Maharashtra.
- Under this scheme the total period of reimbursement of interest subsidy shall be 7 years, which will include 2 years of moratorium on the lines of provisions under para 6(xiii) of Centrally Sponsored TUF Scheme dated 28th April 2011.
- There will be no ceiling on investment in a project. However, the interest subsidy will be payable on the amount of long term loan admissible for the purpose of the interest scheme under the centrally sponsored TUFS.

Source: Textile Policy of the Government of Maharashtra for the Year 2011-2017, Cooperation, Marketing & Textiles Department, Government of Maharashtra

For further information, contact:

Industries, Energy and Labour Department, Govt of Maharashtra:
http://industry.maharashtra.gov.in/

Textiles Department, Govt of Maharashtra:
www.mahatextile.maharashtra.gov.in

D. Karnataka

Karnataka is amongst the country's leading industrial states, and has focused extensively on the development of its industries, as well as its trade and service sectors. The State's Industrial Policy aims to increase the industry's contribution to GDP to 20% by 2014, and targets providing additional employment of 1 million by 2014. Innovation-driven holistic growth of the MSME sector is an especially strong focus of the state's policy initiatives. This drive towards growth is especially evident in the state's implementation of Suvarna Karnataka Development Corridor Programme, which will create four major industrial corridors throughout the length and breadth of the state.

The state's textile policy is designed on similar targets of achieving holistic development, and outlines a cluster development approach for the growth of the state's textile sector. The state is especially eager to promote the technical textiles sector, aiming for acquiring "fast-mover advantages" in the national technical textiles sector. The policy supports ventures in technical textiles such as camouflaged clothing, construction textiles, institutional manufacturing gears, etc. The magnitude of the various incentives the state offers vary by geographical areas in which the units are established/registered.

Specific and relevant incentives under the state industrial policy

	Karnataka Industrial Policy
Infrastructure	***Exemption from Electricity Duty*** • 100% exemption of electricity duty / tax for the initial period of five years, four years and three years for micro and small manufacturing enterprises operating in Zone 1, Zone 2 and Zone3, respectively
Fiscal	***Investment promotion subsidy*** *Eligibility* • Enterprises availing term loan to an extent of minimum 50% cost of fixed assets • The unit shall avail the sanctioned subsidy within the period of five years. *Benefits* • 15%-25% VFA, with a maximum of US$ 9,090 – US$ 18,181 for micro manufacturing enterprises • 10%-20% VFA, with a maximum of US$ 18,181 – US$ 36,363 for small manufacturing enterprises • US$ 36,363 – US$ 54,545 for medium manufacturing enterprises employing a minimum of 25 workers • Additional 5% subsidy, with a maximum of US$ 1,818, US$ 5,454 and US$ 9,090.91 for Micro, Small and Medium Manufacturing Enterprises, respectively, managed, owned and/or operated by SC/ST, women, physical challenged, ex-servicemen entrepreneurs and enterprises coming up in the most backward taluks of Hyderabad-Karnataka region ***Stamp duty exemptions and concessional registration charges*** *Eligibility* • Enterprises availing

- Loan agreements, credit deeds, mortgage and hypothecation deeds executed for availing term loans from State Govt. and / or State Financial Corporation, Industrial Investment Development Corporation, National Level Financial Institutions, Commercial Banks, RRBs, Co-operative Banks, KVIB / KVIC, Karnataka State SC/ST Development Corporation, Karnataka State Minority Development Corporation and other institutions notified by the Government between 2009-2014
- Lease deeds, lease-cum-sale and absolute sale deeds executed by industrial Enterprises in respect of industrial plots, sheds, industrial tenements, by KIADB, KSSIDC, KEONICS, KSIIDC, Industrial Co-operatives and approved private industrial estates

Benefits

- 75% - 100% exemption of stamp duty
- For all loan documents and sale deeds as specified above, the registration charges shall be at a concessional rate of US$ 0.018 per US$ 18.18

Conversion fine waiver

- The payment of conversion fee for converting the land from agriculture use to industrial use including for development of industrial areas by private investors will be reimbursed by 75% - 100% following project implementation

Entry tax exemptions

- 100% exemption from payment of entry tax on 'Plant & Machinery and Capital Goods' for an initial period of 3 years from the date of commencement of project implementation. 'Plant & Machinery and Capital Goods' includes Plant & Machinery, equipment etc. including machineries for captive

generation of Electricity for MSME, large and mega projects in Zones 1, 2 and 3

- 100% entry tax exemption on raw materials, inputs, component parts & consumables (excluding petroleum products) [wherever applicable] for a period of 5 years from the date of commencement of commercial production

Exemption of Agricultural Produce Market Committee Cess / fees

- APMC Cess/ fees in respect of procurement of agriculture produce as specified in the Schedule (inserted by Act No.17 of 1980 and effective from 30.06.1979) Sl.No. II, III, IV, VI, VII, IX and X to the Karnataka APM (Regulation & Development) Act, 1966, directly from farmers for processing by new and existing industries in Zone – 1, 2 & 3 shall be exempted for a period of five years, four years and three years respectively for MSME, Large, and Mega Projects

Interest-free loan on VAT

Eligibility

- All new large and mega manufacturing Enterprises established in Zone – 1, 2 and 3

Benefits

- Interest-free loan of 50% of assessed gross VAT for initial 5 yrs. subject to the max. of 100% of total value of fixed assets for units investing US$ 1.82 million – US$ 9.09 million with minimum direct employment generation of 100, and additional employment of 20 for every US$ 1.82 million investment. Repayment of the loan shall be in 3 annual instalments after 5 yrs.
- Interest-free loan of 50% of assessed gross VAT for initial 6 yrs. subject to the max. of 75% of total

value of fixed assets for units investing US$ 9.27 million – US$ 45.45 million with minimum direct employment generation of 200, and additional employment of 20 for every US$ 9.09 million investment. Repayment of the loan shall be in 3 annual instalments after 6 yrs.

- Interest-free loan of 25% of assessed gross VAT for initial 7 yrs. subject to the max. of 50% of total value of fixed assets for units investing US$ 45.64 million - US$ 182 million with minimum direct employment generation of 400 for investment upto US$ 54.55 million, and additional employment of 50 for every US$ 18.18 million additional investment. Repayment of the loan shall be in 4 annual instalments after 7 yrs.
- Interest-free loan of 25% of assessed gross VAT for initial 10 yrs. subject to the max. of 50% of total value of fixed assets for units investing US$ 182 million – US$ 545 million with minimum direct employment generation of 750 for investment upto US$ 182 million, and additional employment of 25 for every US$ 0.18 million additional investment. Repayment of the loan shall be in 4 annual instalments after 10 yrs.
- Interest-free loan of 25% of assessed gross VAT for initial 15 yrs. subject to the max. of 50% of total value of fixed assets for units investing over US$ 545 million with minimum direct employment generation of 1250. Repayment of the loan shall be in 5 annual instalments after 12 yrs.

Interest subsidies

- Micro manufacturing enterprises that have availed term loans with financial institution may receive Interest subsidy of 5% on the interest actually paid to the financial institution. Unit should not have

Karnataka Industrial Policy	
	defaulted in payment of principle or interest nstalment. • The period of interest subsidy is 5 years, 4 years and 3 years in Zones 1, Zon 2 and Zone 3, respectively
Research and development	***Technology upgrade, quality certification and patent registration*** • Interest subsidy of 5% on technology upgrade loans availed from KSFC, KSIIDC & Scheduled commercial banks, which are not covered under CLCSS of GOI, for micro and small manufacturing enterprises located in Zones 1, 2 and 3 • ISO series certification for micro and small manufacturing enterprises located in Zones 1, 2 and 3 at 75% of cost at a maximum of US$ 1,363 • Micro and small manufacturing enterprises can avail assistance of 50% on fees payable to BIS, to a maximum US$ 363, and of 25% of cost, to a maximum of US$ 909.09 for purchase of testing equipments approved by BIS • Micro and small manufacturing enterprises registering patents can avail assistance of 75% of cost of fees payable to Patent Office, to a maximum of US$ 2,272, and 50% of cost, to a maximum of US$ 1,363, towards attorney fees, patent search, etc • Micro and small manufacturing enterprises adopting new technologies can avail assistance of 25% of the cost of adoption to a maximum of US$ 909 for technologies adopted from recognized national laboratories • Micro and small manufacturing enterprises establishing technology business incubation centers can avail assistance of 25% of the project cost to a maximum of US$ 0.09 million

Karnataka Industrial Policy	
Trade	***Entry tax exemptions for export-oriented enterprises*** • For 100% export-oriented units, 100% exemption from payment of ET on 'Plant & Machinery and Capital Goods' for an initial period of 3 years from the date of commencement of project implementation irrespective of zones • For other EOUs, (Minimum Export obligation of 25%of their total turnover) 100% exemption from payment of ET on raw materials, inputs, component parts & consumables (excluding petroleum products) for an initial period of 3 years from the date of commencement of commercial production in Zone 1, 2, and 3 and 50% in Zone 4 ***Refund of certification charges for export-oriented enterprises*** • Refund of expenses incurred for compulsory marking like Conformity Europeenne (CE), China Compulsory Certificate (CCC), etc., to the extent of 50% of expenses subject to a maximum of US$ 3,636 per unit for both 100% and other EOUs in all zones
Human resource development	***Expenditure reimbursement for enterprises following the state's reservation policy*** • Medium, large and mega manufacturing enterprises employing more than 100 persons may receive 50% reimbursement of expenditure incurred for employees coming under reserved category towards contribution to ESI & EPF schemes for a period of initial 5 years
Other	***Anchor unit subsidy*** • US$ 0.18 million offered to the first two manufacturing enterprises with minimum employment of 100 members and minimum

investment of US$ 9.09 million in each of the taluks located in Zones 1, 2 and 3.

- This subsidy will be applicable only in taluks where industrial enterprises with investment of US$ 9.09 million and above do not currently exist

Special incentives for Enterprises coming up in low HDI districts

Eligibility

- New large scale Enterprises setting up facilities in Bagalkot, Bijapur, Koppal, Chamarajanagar, Gulbarga, and Raichur, and employing atleast 75% local persons as defined in the Sarojini Mahishi recommendations

Benefits

- 75% reimbursement of expenditure on account of contribution towards Employees State Insurance (ESI) and Employees Provident Fund (EPF) scheme for a period of initial five years. These benefits will be limited to 25% of value of fixed capital investment. The amount of reimbursement will be paid annually based on minimum statutory limit subject to the condition that the unit has paid its contribution towards ESI & EPF on the due dates

Subsidies for establishment of Effluent Treatment Plants

- One time capital subsidy upto 50% of the cost of Effluent Treatment Plants (ETPs), subject to a ceiling of US$ 0.18 million per manufacturing enterprise in Zones 1, 2 and 3 and a ceiling of US$ 0.09 million in Zone 4

Water harvesting and conservation measures

- Small and medium manufacturing enterprises can avail 50% of the cost of rain water harvesting endeavors to a maximum of US$ 1,818, 50% of

Karnataka Industrial Policy	
	the cost of waste water recycling endeavours to a maximum of US$ 9,090, 50% of the cost of zero discharge process endeavours to a maximum of US$ 1,818
	Energy conservation
	• Small and medium manufacturing enterprises practicing energy conservation measures resulting in reduction of energy consumption of atleast 10% of earlier consumption may receive assistance of 10% of capital cost to a maximum of US$ 9,090, while use of non-conventional energy sources may result in assistance of 10% of capital cost to a maximum of US$ 9,090
	Refund of cost incurred for preparation of project reports
	• Cost incurred by micro and small manufacturing enterprises for preparation of project reports by TECSOK/CEDOK/KSFC or any other recognized institutions for availing loans will be reimbursed to the maximum of US$ 181 per unit subject to financing of the unit

Source: Karnataka Industrial Policy 2009-14, Department of Industries & Commerce, Government of Karnataka

Specific incentives under the state textiles policy

Karnataka Textile Policy	
Infrastructure	***Land Acquisition or allotment through Karnataka Industrial Area Development Board (KIADB) or Karnataka Small-Scale Industries Development Corporation (KSSIDC)***
	Eligibility
	• Entrepreneurs setting up new units and entering into arrangements for procurement of Land with KIADB / KSSIDC

- SPVs set up with a minimum of 10 members from the user industry and / or Industry Associations for the purpose of developing Textile Parks in identified locations, entering into arrangements for procurement of Land with KIADB/KSSIDC

Benefits

- Reimbursement of 25% of the cost of land including acquisition charges, if any, as charged by KIADB / KSSIDC or US$ 45,454, whichever is less, for industries located in Zone 1
- Reimbursement of 50% of only the acquisition charges levied by KIADB / KSSIDC or US$ 0.03 million, whichever is less, for industries located in Zone 2

Common infrastructure for greenfield textile projects

Eligibility

- SPV comprising a minimum of 10 entrepreneurs from the user industry to develop green field textile and garment industry parks in the State. Minimum of 51% of the equity in the SPV is to be held by the user industry, the balance 49% can be held by strategic partners / developers / Government agencies, etc
- These parks should be a minimum of 25 acres in size, and can house integrated textile production facilities viz. Spinning, Weaving, Processing, Garmenting and other ancillary units that may be required or sector-specific activities, such as weaving or processing, etc

Benefits

- Government of Karnataka will provide one-time grant support for development of common infrastructure with an amount of 20% - 40% of the

Karnataka Textile Policy	
	project cost or US$ 0.015 million – US$ 0.022 million, whichever is less • For projects approved by Scheme for Integrated Textile Parks (SITP), Government of Karnataka will provide 9% of the project cost or US$ 0.91 million, whichever is less
Fiscal	***Credit-linked capital subsidy*** • 15% - 20% on the value of fixed assets, or US$ 0.03 million – US$ 0.04 million, whichever is less • Additional subsidy for units within designated textile parks, and for SC/ST persons with disabilities/minorities/ex-servicemen and women: 5% on the value of fixed assets or US$ 9,090, whichever is less ***Stamp duty exemptions*** 50% - 100% reimbursements for entrepreneurs setting up new units and entering into arrangements for procurement of Land, and for SPVs with a minimum of 10 members from the user industry and/or Industry Associations for the purpose of developing Textile Parks in identified locations: • Execution of lease, lease-cum-sale and sale deeds for industrial land or for plots allotted • Execution of lease deeds for industrial sheds or for plots taken on lease • Loan and credit deeds, including security documents such as mortgage deeds, pledge deeds, etc, executed for availing long term funds from banks or from financial institutions and other agencies of GoK/GoI • Stamp duty paid on Imports

Karnataka Textile Policy	
	Entry tax reimbursement
	• Full reimbursement on Plant & Machinery and Capital Goods including equipments for captive power generation and for Common Effluent Treatment and waste disposal facilities
Human resource development	***Capacity-building support***
	Eligibility
	• A group comprising a minimum 5 entrepreneurs with units in the State / Industry Associations
	• SPVs developing textile parks through Central or State Government assistance.
	Benefits
	• Reimbursement of 50% of the project cost or US$ 0.09 million, whichever is less for market development and branding
	• Reimbursement of 50% of the project cost or US$ 0.05 million, whichever is less for design development and product diversification
	• Reimbursement of 50% of the cost or US$ 3,636, whichever is less for obtaining certification, accreditation, or any of the other internationally recognized/accepted standards, such as ISO-9000, ISO-14000, ISO-18000, Social Accountability Standards, Internationally-accredited eco-labels OKE-TEX 100, etc, and any other internationally accredited certification that will enable better market positioning
	Strengthening of existing training institutes
	Eligibility
	• The institution should have been in existence at least for 5 years conducting academic programs in textile education offering certificate / diploma /

degree courses of minimum one year duration. Technical subjects of sub-sectors of spinning, weaving, knitting, processing, garmenting & fashion designing, technical textiles, etc

Benefits

- Funding support of US$ 0.18 million for each institution during the policy period\

Benefits

- The assistance will be limited to the items of capital expenditure covering plant & machinery, testing lab, CAD/CAM centre, teaching aids, content development, etc. that are directly related to conducting the textile education related courses
- The assistance will not be available for land, building and other infrastructure works, and it shall be the responsibility of the beneficiary institution to provide the same
- The assistance will not be available towards any recurring costs such as salaries, insurance & maintenance of the machinery, consumables, electricity costs, etc., and it shall be the responsibility of the beneficiary institution to meet the same

Establishment of New Skill Development Centers (SDCs)

Eligibility

- Individual Industry unit, Industry Associations, Export Promotion Councils.
- Academic institutions and vocational education institutions under the Central and State Governments, autonomous bodies and private sector institutions.
- Special Purpose Vehicles (SPVs) promoted by

textile parks, private sector companies, Government agencies, etc.

- Non Governmental Organizations (NGOs).
- Other organizations that focus on skill development
- Agencies should have proven track record of conducting vocational skill development programmes. The agencies that do not have any previous experience of skill development should have a clear business model, organizational set up and resources to undertake such skill development programmes
- Each of the projects/SDCs shall target to train at least 1500 persons over a period of 3 years
- The courses will be short duration varying from one month to three months, and the syllabus should be framed to suit the industry needs and shall have prior approval of the accreditation body as mentioned in the following section

Benefits

- Each SDC will be eligible for one-time funding support of US$ 0.18 million – US$ 0.27 million
- All the items of capital expenditure, except land and building, to establish the SDC will be eligible for funding. The assistance will not be available for land, building and other infrastructure works, and it shall be the responsibility of the beneficiary institution to provide the same. All the efforts will be made to identify and utilize the existing buildings available with various Government agencies including educational institutions, and other sources including the applicant agencies
- Trainees will be provided wage compensation per month during the training period under the policy.

Karnataka Textile Policy	
	Wherever possible, assistance available under various Central and State Government schemes will be dovetailed to provide stipend / wage compensation to the trainees ***Industry and institution linkages*** • US$ 0.91 million will be earmarked towards pro-actively facilitate creation of linkages between the Institutions / Agencies implementing the HRD programmes and the textile and garment industry
Other	***Common effluent treatment plant and hazardous waste disposal facilities*** *Eligibility* • SPV comprising a minimum of 10 entrepreneurs from the user industry establishing these facilities *Benefits* • Government will provide one-time grant support of 50% of the project cost or US$ 0.91 million, whichever is less, in four equal instalments • Projects funded under any GoI scheme will provide 20% of project cost or US$ 0.36 million, whichever is less

Source: Suvarna Vastra Neethi 2008-13, Department of Handlooms and Textiles, Government of Karnataka

For further information, contact:

Department of Industries and Commerce, Government of Karnataka:
http://www.karnatakaindustry.gov.in/

Department of Handlooms & Textiles, Government of Karnataka:
http://www.textiles.kar.nic.in/

E. Andhra Pradesh

Specific incentives under state industrial policy

Andhra Pradesh Industrial Policy	
Infrastructure	***Land***
	• Reservation of 30-40% of the land for MSMEs in the upcoming industrial estates developed by Andhra Pradesh Industrial Infrastructure Corporation (APIIC). APIIC shall allocate 16.2% of number of plots to Scheduled Caste entrepreneurs and 6% of number of plots to Scheduled Tribe entrepreneurs in new Industrial Estate and preferential allotment to SC/ST entrepreneurs in existing industrial estates. Andhra Pradesh Industrial Infrastructure Corporation (APIIC) shall allocate 10% of number of plots to Women Entrepreneurs in the new industrial estates
	• 100% reimbursement of Stamp duty and transfer duty paid by the industry on purchase of land meant for industrial use
	• 100% reimbursement of Stamp duty for Lease of Land/Shed/ Buildings and also mortgages and hypothecations
	• 25% rebate in land cost limited to US$ 0.02 million in Industrial Estates or Industrial Parks for MSMEs and large industries, and 331/3% rebate for SC/ST entrepreneurs
	• 25% Land conversion charges for industrial use limited to US$ 18,181 for MSMEs and SC/ST entrepreneurs
	Power
	• Fixed power cost reimbursement at US$ 0.014 per unit (upper ceiling) on the proposed revised rates (2010-11) for 5 years from the date of commencement of commercial production. In

case of a decrease in the power tariff, the reimbursement will be reduced proportionately for MSMEs and large industries

- Fixed power cost reimbursement at US$ 0.018 per unit (upper ceiling) on the proposed revised rates (2010-11) for 5 years from the date of commencement of commercial production. In case of a decrease in the power tariff, the reimbursement will be reduced proportionately for SC/ST entrepreneurs

For medium and large enterprises, and for MSEs established by SC/STs, infrastructure like roads, power and water will be provided at door step of the industry for standalone units by contributing 50% (MLE) – 75% (MSEs by SC/ST) of the cost of infrastructure from IIDF with a ceiling of US$ 0.18 million, subject to

- The location being beyond 10 kms from the existing Industrial Estates/IDA's having vacant land/shed for allotment
- Cost of the infrastructure should be limited to 15% of the eligible fixed capital investment made in the industry

Water

- Reservation of 10% of water for industrial use from the existing projects as well as future projects will continue

VAT, CST, SGST exemptions

- Reimbursement of 100% VAT/CST or State Goods and Services Tax (SGST) for a period of 5 years from the date of commencement of commercial production for micro enterprises
- Reimbursement of 50% VAT/CST or State Goods and Services Tax (SGST) for a period of 5 years

Andhra Pradesh Industrial Policy	
	from the date of commencement of commercial production for small enterprises • Reimbursement of 25% VAT/CST or State Goods and Services Tax (SGST) for a period of 5 years from the date of commencement of commercial production for medium enterprises and large industries ***Capital investment subsidies*** • 15% investment subsidy on fixed capital investment subject to a maximum of US$ 0.04 million for MSEs; 35% fixed capital investment subsidy for MSEs owned by SC/STs, and 40% subsidy for MSEs owned by SC/ST women entrepreneurs with a maximum limit of US$ 0.09 million per unit; 45% subsidy for units set up in Scheduled Areas by ST entrepreneurs with a maximum limit of US$ 0.09 million per unit • Interest subsidy of 3% - 9% per annum on the term loan taken on the fixed capital investment by New Micro and Small Enterprises for a period of 5 years from the date of commencement of commercial production under Pavala Vaddi Scheme • Seed capital assistance to First Generation Entrepreneurs to set-up Micro Enterprises at10% of the Machinery cost, which will be deducted from the eligible investment subsidy for MSEs and SC/ST entrepreneurs
Research and development	***Patent and quality certification*** • 50% subsidy on the expenses incurred for quality certification/ patent registration limited to US$ 3,636 for MSME'

Andhra Pradesh Industrial Policy	
Human resource development	***Skill development*** • 50% Reimbursement of cost involved in skill upgrade and training the local manpower limited to US$ 36per person
Other	***Clean energy initiatives*** • 25% subsidy on specific cleaner production measures limited to US$ 9,090

Source: Industrial Investment Promotion Policy 2010-15, Industries and Commerce Department, Government of Andhra Pradesh

Specific incentives under state textile policy

Andhra Pradesh Textile Policy	
Fiscal	***Stamp duty exemptions*** • 100% reimbursement of stamp duty, transfer duty and Registration fee paid by Textile/Apparel units ***Corporate tax exemptions*** • Applicable to all units located in SEZ Parks as per SEZ act besides assisting in Exports and Imports
Other	***Zoning regulations*** • Textile/Apparel units will be exempted from the zoning regulations and from the payment of conversion fee ***Urban land ceiling exemptions*** • Private land owners will be allowed exemption under ULC for development of Textile/Apparel Parks with a minimum extent of 25 acres in the periphery of city limits and beyond besides a minimum of 5 acres within city limits ***Health care*** • 10 – 15 acres of land will be earmarked amongst a cluster of units to promote higher healthcare

Andhra Pradesh Textile Policy
• The Government of Andhra Pradesh will notify all Textile and Apparel Parks as Public Utility Services. It is also decided that Essential Service Maintenance Act (ESMA) will be made applicable to the Textile and Apparel Parks to provide facility of engaging workers beyond the normal working hours for achieving higher productivity and to catch export markets

Source: Textile and Apparel Promotion Policy 2005-10, Handlooms & Textiles Department, Government of Andhra Pradesh[17]

For further information, contact:

Department of Industries, Government of Andhra Pradesh:
www.apind.gov.in

Department of Handlooms & Textiles, Government of Andhra Pradesh:
www.aponline.gov.in

F. Rajasthan

The business environment of Rajasthan is nurtured by an enterprise-friendly government, rich mineral and agro resources, good infrastructure which is being continuously upgraded, a tradition of entrepreneurship and availability of skilled manpower. Rajasthan's development road-map is deeply rooted in the conviction that sound infrastructure drives investment and economic growth. Significant and sustained efforts and investments in strengthening transportation, communication and industrial infrastructure have resulted in a strong physical infrastructure backbone in the State.

From a policy perspective, the state is placing significant emphasis on increasing opportunities for its small-scale industries and increasing the diversity and number of medium- and large-scale industries in non-extractive industries.

Specific incentives under the state's Industrial and Investment Promotion Policy 2010 are highlighted below:

[17] The Industrial Investment Promotion Policy 2010-15 has extended the clauses and incentives of the pre-existing Textile and Apparel Promotion Policy 2005-10 by an additional five years to 2015.

Rajasthan Industrial and Investment Promotion Policy	
Infrastructure	***Land*** • Wherever a particular use of land is specified in the master plans of the towns and cities, such land can be used for such specific purposes without any permission for change in land use • For projects envisaging investment of US$ 18.18 million and above if 25% of the land is purchased by the developer on his own, the government may facilitate acquisition of the remaining 75% land • MSME entrepreneur associations attempting to create MSME clusters through Special Purpose Vehicles (SPVs) will be eligible for obtaining government land at 50% of DLC rates
Human resource development	***Support for expenses incurred for employees*** • Employers would be provided subsidy up to 50% of the salary or stipend paid to trainees limited to US$ 36 per trainee per month. Employers benefitting from the scheme are expected to provide employment to 50% of the trainees ***Training infrastructure*** • Over the next 5 years, the government proposes to set up one Rural Development and Self-Employment Training Institute (RUDSETI) in every district of the state, largely through private initiative. • To develop training infrastructure at the doorstep of industrial areas or clusters, a new scheme to provide financial assistance will be provided for land, building plant and machinery etc. subject to a maximum of US$ 0.18 million will be launched. • Financial assistance including capital and operating expenditure reimbursement will be provided to lead institutes for developing new training courses, benchmarking the existing courses against

Rajasthan Industrial and Investment Promotion Policy	
	international curriculum and conducting the new courses in specific focus sectors • To encourage establishment of Technical Institutions like Engineering, MBA, MCA etc. in rural areas, land would be converted for such purpose without any conversion charges. Where investment of US$ 9.09 million or more is obtained for establishing such institutions, the promoter maybe offered land at 50% of the reserve price of land for industrial use.
Trade	***Export subsidies*** • Export units, wherever necessary, will be given a 30% grant for ground rent for participation in approved international trade fairs subject to a maximum limit of 9 sqm.
Other	***Viability gap funding for PPP projects*** • Government of India provides Viability Gap support for PPP projects to the extent of 20% of project cost. State would also provide additional viability gap funding up to 20% of project cost, wherever so necessary and critical. State would provide required budgetary support for the purpose.

Source: Rajasthan Industrial and Investment Policy – 2010, Department of Industries, Government of Rajasthan

Specific incentives specific to MSMEs under the state's Industrial and Investment Promotion Policy 2010 and Policy Package for Micro, Small and Medium Enterprises in Rajasthan 2008 are highlighted below:

Rajasthan Policy Package for Micro, Small and Medium Enterprises

Infrastructure

Land

- In addition to any other grant given by Government of India, RIICO will provide land at 50% of the prevailing DLC rates. Operational/running/ maintenance cost of such plants and facilities will be borne by such industries associations. This support shall be initially provided to 10 such CETPs/common effluent treatment facilities, subject to review thereafter

Power

- RIICO shall develop separate rural small industrial areas for Micro, Small and Medium Industry with 24 hours three-phase uninterrupted power supply and enabling infrastructure, viz. road connectivity, drainage system, street lighting, water supply, etc. in the potential growth areas to be identified by the State Government. Total area of such rural small industrial areas will be of at least 100 hectares with normal average plot size of 2000 sq. metres and plots shall be allotted only to non-polluting industries. RIICO shall develop such areas on noprofit-no-loss basis. The State Government shall provide 10% subsidy to RIICO towards the capital cost.

Electricity Duty Exemption

- Exemption of 75% from Electricity Duty to the units located in rural areas, i.e. areas outside the limits of municipalities, municipal councils, municipal corporations, urban improvement trusts and urban development authorities

Infrastructure development

- The State Government will suitably augment 'Critical Infrastructure Fund' and 50% of this fund will be earmarked for infrastructural needs of the Micro, Small Enterprises clusters, such as

Rajasthan Policy Package for Micro, Small and Medium Enterprises	
	providing road connectivity, power lines and water availability.
Fiscal	***Entry Tax exemption*** • Exemption from Entry Tax on inputs, such as raw materials, processing materials, packaging materials except fuels ***CST Exemption*** • For Micro and Small industrial enterprises, the CST shall be reduced to 0.25% ***Stamp Duty Exemptions*** • Stamp duty chargeable on loan agreements and deposit of title deed and lease contract shall be reduced to US$ 1.82 per document. Stamp duty chargeable for execution of simple mortgage either in cases when the possession of the properties not transfer to loanee or when possession of property is transferred to loanee shall be reduced to US$ 9.09 per document ***Easier access to credit*** • To ensure easy and smooth credit flow to the artisans, the State Government will get at least 10,000 'Artisans Credit Cards' issued per year from different banks in the next five years
Research and development	***Patent and quality certification*** • An industrial enterprise or R&D unit or testing laboratory filing and obtaining Patent/ISO certification during the period between 1.4.2007 and 31.12.2011 will be provided reimbursement of the expenses incurred towards this, subject to a limit of US$ 3,636 or 10 times of the fee, whichever is lower

Rajasthan Industrial and Investment Promotion Policy	
	Technology development and upgrade • Research, development, and testing laboratories set up by Micro, Small & Medium Enterprises Associations will be given land at 50% of the DLC rates and may be provided part of the capital cost incurred on establishment of such laboratories, subject to a limit of US$ 0.36 million, provided that such laboratories obtain accreditation from a national level Accreditation Board/Authority
Human resource development	***Skill development*** • For ensuring availability of skilled manpower in the State, training institutes set up in the State by National/State level institutions, may be provided free land and 50% of the capital cost involved. ***Employment*** • To encourage women entrepreneurs in micro and cottage industry, Rajasthan Financial Corporation will launch a special scheme of providing loan at subsidized rates.
Other	***Marketing Support*** The State Government shall provide the following facilities for purchases of stores/services from MSME registered/having Entrepreneur memorandum with the Industries Department by its various departments, PSUs and autonomous bodies • Tender form shall be made available at 50% of the prescribed cost. • Earnest money shall be deposited at 0.5% of the estimated value of purchases/services • Security deposit will be 1% of the value of the purchases/services

Rajasthan Industrial and Investment Promotion Policy

Cluster development

- Anchor units, nodal institutions and/or industry associations developing a cluster having critical mass of minimum 20 units would get financial assistance for taking up activities for developing common facilities that lead to improvement of productivity and cost efficiency among member units in the cluster.
- Government shall provide financial assistance up to 10% of the total project cost of Cluster Development Plan, within a ceiling of US$ 0.27 million.

Effluent treatment plants

- State Government shall provide 50% of capital cost for establishment of Common Effluent Treatment Plants (CETP)/facilities by industries associations of Micro, Small and Medium Enterprises in industrial areas/clusters
- The State Government shall bear 50% of the capital cost incurred by the Small & Medium Enterprises for establishment of effluent treatment plant/facility provided the unit uses 80% of the recycled water

Source: Policy Package for Micro, Small and Medium Enterprises in Rajasthan 2008, Department of Industries, Government of Rajasthan

For further information, contact:

Department of Industries, Government of Rajasthan:
http://rajind.rajasthan.gov.in/

G. Punjab

Punjab was the first Indian State to use agricultural technology to engineer a "Green Revolution", recording the highest growth rate in food production. Today, with its rich agricultural resources and favourable climate, the state continues to be one of the largest producers of food grains and cash crops in

the country. Punjab contributes 68% to the annual food production of India. Punjab's large agriculture base gives it a competitive advantage in industries such as food processing and textiles.

Following are the thrust areas of the policy:

- To play the role of facilitator & hand-holding being investor-friendly.
- To lessen the Government control while outsourcing regulatory measures.
- To bring administrative reforms under the aegis of Punjab Social Development and Governance Reforms Commission.
- To attract investment in the private sector & under the PPP mode.
- To create Dedicated Fund for the development of clusters, Common Facilities. Centres and providing infrastructural support under the initiatives of Centre & State Government.
- To promote competitiveness and cutting costs for the industry.
- To stimulate economic growth, industry and service sector being the main engines of growth.
- To promote IT & IT Enabled Services.
- To promote value addition to the resources of the State while promoting Agro based & Food processing industry.
- Emphasis on fresh employment generation and skill upgradation.
- To revive the sick industry by way of OTS and to provide mechanism for debt re-structuring.
- To address & take care of environmental issues

Specific incentives offered under the industrial policy

Punjab Industrial Policy	
Infrastructure	***Electricity***
	• The Empowered Committee has been reducing Electricity Duty on mega projects to half for a period of five years. This incentive will be increased to full waiver of Electricity Duty for a period of seven years for mega Textile projects in districts of Patiala, Sangrur, Mansa, Bathinda, Faridkot, Moga, Muktsar and Ferozepur.
	Land and building
	• Change of land use will not be required anywhere in the State except in the areas falling within the municipal limits.
	• There shall be no stamp duty on first sale/transfer of developed infrastructure by the developer in industrial parks / complexes as approved by the Department of Industries during the setting up of such areas and subsequently for a period of three years
Fiscal	***VAT Refund***
	• Time period for issuance of VAT refunds has been reduced from 90 days to 60 days. Further, 75% of the VAT refund has been allowed against Indemnity Bond to the Units who are filing returns on monthly basis. Any delay in grant of refund beyond period of 60 days attracts the provision of payment of interest, besides punitive action against the official/officer responsible for delay.

Source: Industrial Policy 2009, Department of Industry and Commerce, Government of Punjab

Specific incentives offered under the textile policy

Punjab Textile Policy	
Infrastructure	***Electricity duty waiver***
	• 100% waiver till 2013 for mega textile projects in districts of Patiala, Sangrur, Mansa, Bathinda, Faridkot, Moga, Muktsar and Ferozepur

Punjab Textile Policy	
Technology upgrade	***Technology Up-gradation*** • Capital ceiling for machinery under TUFS scheme has been increased from US$ 0.11 million to US$ 0.18 million for decentralised powerloom sector. The rate of credit linked capital subsidy under this scheme is 15% for small scale textile industry.

Source: Textile Policy 2006, Industries Branch, Department of Industry and Commerce, Government of Punjab

For further information, contact:

Department of Industry, Government of Punjab:
http://www.pbindustries.gov.in/

H. Madhya Pradesh

Madhya Pradesh is a leading textile hub with exports of US$ 327 million per annum. The government has implemented a cluster development strategy through infrastructure development, with the establishment of a textile park in Chhindwara under Scheme for Integrated Textile Parks (SITP). Furthermore, apparel parks have also been proposed at Indore and Jabalpur. Textile-specific Industrial Training Institutes (ITIs) are also being established under the state's Skill Development Programme in Public Private Partnership Mode.

Specific incentives under the state's Industrial and Investment Promotion Policy 2010 (amended in 2012) and Technical and Skill Development Policy 2012 are highlighted below:

Madhya Pradesh Industrial and Investment Promotion Policy 2010	
Infrastructure	***Land*** • Micro and small industries will be given exemption of 50% in land revenue on diversion of up to 5 acres of land purchased by them for industrial purposes. • Mega projects, i.e. projects with fixed capital investment (excluding working capital) of US$ 45,454

Madhya Pradesh Industrial and Investment Promotion Policy 2010

Land

- Micro and small industries will be given exemption of 50% in land revenue on diversion of up to 5 acres of land purchased by them for industrial purposes.
- Mega projects, i.e. projects with fixed capital investment (excluding working capital) of US$ 45,454 will receive land at 25% of the prescribed premium rate as below on the basis of availability of land on the condition that the proposed fixed capital investment shall be made within a period of 3 years
  - For project cost between US$ 4.55 million and US$ 9.09 million: Up to 5 acres to be given on concessional rate
  - For project cost above US$ 9.09 million upto US$ 18.18 million: Up to 10 acres to be given on concessional rate
  - For project cost above US$ 18.18 million upto US$ 36.36 million: Up to 15 acres to be given on concessional rate
  - For project cost above US$ 36.36 million upto US$ 90.91 million: Up to 20 acres to be given on concessional rate
  - For project cost above US$ 90.91 million: Area to be decided by Apex Level Investment Promotion Empowered Committee on case-by-case basis
- Any industry located at one place giving employment to more than 1000 persons on a regular basis also considered a mega project without any stipulation on minimum capital investment. Industries will receive land at 25% of the prescribed premium rate as below on the condition that regular jobs shall be created within a period of 3 years
  - Employment between 1000 and 1500: Up to 10 acres to be given on concessional rate

- Employment above 1500 upto 2000: Up to 20 acres to be given on concessional rate
- Employment above 2000 upto 2500: Up to 25 acres to be given on concessional rate
- Employment above 2500: Area to be decided by Apex Level Investment Promotion Empowered Committee on case-by-case basis

Infrastructure

- Assistance of 15% of the expenditure on the establishment/development of industrial parks subject to a maximum limit of US$ 0.91 million will be provided to the private sector on the condition that the developed parks will have a minimum area of 100 acres, and will house a minimum of 10 industrial units with total employment of 250 persons.
- Major and medium industries will be provided assistance of 50% of the expenditure on development of infrastructure, like roads, power and water supply upto the premises of the unit (within a ceiling of 15% of the capital expenditure subject to a maximum US$ 0.18 million). Assistance will be available only to industries being established at least 10km away from industrial areas where land and building are available for allotment.

Fiscal

Interest subsidy

- Eligible micro and small manufacturing enterprises will get interest subsidy of 5% for a period of 7 years to a maximum limit of US$ 36,363. MSEs established by SC/ST/Women/Disabled will receive interest subsidy of 6% for a period of 8 years to a maximum limit of US$ 45,454
- Eligible medium manufacturing enterprises will receive interest subsidy as follows:

- Backward-A districts: Maximum of US$ 18,182 for a period of 5 years at a rate of 3%
- Backward-B districts: Maximum of US$ 27,272 for a period of 6 years at a rate of 4%
- Backward-C districts: Maximum of US$ 36,363 for a period of 7 years at a rate of 5%
- No industry block districts: Maximum of US$ 36,363 for a period of 7 years at a rate of 5%
- SC/ST/Women/Disabled will be eligible for subsidy of 6% for a period of 8 years to a maximum amount of US$ 45,454, regardless of location
- SSIs in textiles with fixed capital investment over US$ 0.09 million will get special subsidy of 25% subject to maximum of US$ 0.05 million, while medium-scale units will receive subsidy of 25% to a maximum of US$ 21,818 in Backward-A, US$ 32,727 in Backward-B, and US$ 54,545 in Backward-C districts

Capital subsidy

- 15% subsidy on fixed capital for MSEs to a maximum of US$ 27,272
- 20% subsidy on fixed capital for MSEs operated by SC/ST/Women/Disabled to a maximum of US$ 36,363

Industrial investment promotion assistance

- MSMEs in Backward-C districts with fixed capital investment between US$ 0.18 million and US$ 1.82 million will be eligible for assistance of 50% for a period of 5 years after adjusting input tax rebate on VAT and CST
- LMIs in advanced districts with investment less than US$ 0.05 million can avail assistance of 50% for 3 years

Madhya Pradesh Industrial and Investment Promotion Policy 2010	
	• LMIs in advanced districts with investment above US$ 0.05 million can avail assistance of 75% for 3 years • LMIs in Backward-A districts with investment less than US$ 0.04 million can avail assistance of 50% for 5 years • LMIs in Backward-A districts with investment above US$ 0.04 million can avail assistance of 75% for 5 years • LMIs in Backward-B districts with investment less than US$ 0.03 million can avail assistance of 50% for 5 years • LMIs in Backward-B districts with investment above US$ 0.03 million can avail assistance of 75% for 7 years • LMIs in Backward-C districts with investment less than US$ 0.02 million can avail assistance of 50% for 5 years • LMIs in Backward-C districts with investment above US$ 0.02 million can avail assistance of 75% for 10 years ***Entry tax exemption*** • New textile units with fixed capital investment of over US$ 18.18 million will be given entry tax exemption for 7 years ***Investment subsidy*** • New textile units will be given an investment subsidy of 10% of eligible capital investment upto maximum of US$ 0.18 million • Interest subsidy @ 2% for 5 yrs on TUFS linked long term loan limited to US$ 0.91 million
Research and Development	***Patent and quality certification*** • Manufacturing industries will be reimbursed 50% or US$ 1,818, whichever is less, on the expenditure incurred for getting ISO 9000 or equivalent certification from international organizations

Madhya Pradesh Industrial and Investment Promotion Policy 2010	
	• Expenditures on getting patents will be fully reimbursed subject to a maximum limit of US$ 3,636 ***Technology development and upgrade*** • Established LMIs that invest 30% of existing fixed capital investment or US$ 9.09 million on expansion, diversification, technology upgrade will be eligible for assistance/facilities at par with new industrial units • Established SSI that invest 50% of existing fixed capital investment, not less than US$ 4.55 million on expansion, diversification, technology upgrade will be eligible for assistance/facilities at par with new industrial units
Human resource development	• 25% subsidy will be given for establishment of Apparel Training Institutes upto US$ 45,454
Other	***Project report cost reimbursement*** • Expenditures incurred by manufacturing enterprises will be reimbursed at the rate of 1% of the project cost for MSMEs and 0.5% for large industries to a maximum limit of US$ 5,454 • New vendor units established in the premises or near large textile and auto industries with a minimum sale of 75% of the product to the mother unit are eligible for the same package of incentives as the mother unit. The mother unit will be permitted to sub-lease the land to the vendor unit.

Source: Industrial and Investment Promotion Policy 2010 (amended in 2012), Govt. of Madhya Pradesh

For further information, contact:

Department of Commerce, Industries and Employment, Govt. of Madhya Pradesh: http://www.mpindustry.org/

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5

FOREIGN INVESTMENT FRAMEWORK

5 Foreign Investment framework

The Foreign Direct Investment (FDI) regime has been progressively liberalized during the course of the 1990s, and continues as such in the 2000s, with removal of most restrictions on foreign investments and simplification of necessary procedures. With limited exception, foreigners can invest directly in India, either on their own or through joint ventures.

Today, foreign investment is prohibited in very few industries in India. Moreover, investment ceilings are gradually being removed. With the intent and objective to promote foreign direct investment through a policy framework that is transparent, predictable, simple and reduces regulatory burden, Government of India has formulated a consolidated FDI Policy on a yearly basis.

Features of the GoI's consolidated FDI Policy and incentives offered by it

- Indian companies are permitted to issue equity shares fully, compulsorily and mandatorily convertible debentures (FCD's) and compulsorily and mandatorily convertible preference shares (CCPS) to non-residents subject to pricing guidelines and valuation norms prescribed under FEMA
- Issue of warrants, partly paid shares, etc. require prior approval of FIPB. Issue of non-convertible, optionally convertible or partially convertible preference shares and debentures needs to comply with the external commercial borrowing (ECB) guidelines of RBI
- Foreign investment is calculated on the basis of ownership and control of the Indian company
- No government approval is required for FDI in virtually all the sectors/activities, except for a small negative list formulated by Government of India
- FIPB considers proposals for foreign participation that do not qualify for automatic approval

- Decisions on all foreign investment proposals are usually taken within four to six weeks of submitting an application
- Free repatriation of capital investment is permitted, provided the original investment (on a repatriable basis) was made in convertible foreign exchange. Further, free repatriation of profits on capital investment is permitted, subject to payment of taxes and other specified conditions
- Use of foreign brand names and trademarks is permitted for the sale of goods in India
- All royalty payments, lump-sum fee for transfer of technology and for use of trademark or brand name are permitted under the automatic route without any monetary or duration limits
- "Single window" clearance facilities and "investor escort services" are available in various states to simplify the approval process for new ventures

5.1 Foreign Direct Investment Policy in Textiles

With the most liberal and transparent policies in FDI amongst emerging countries, India is a promising destination for FDI in the textile sector. 100% FDI is allowed in the textile sector under the automatic route. FDI in sectors to the extent permitted under automatic route does not require any prior approval either by the Government of India or Reserve Bank of India (RBI). Investors are required only to notify the RBI Regional Office within 30 days of receipt of inward remittance.

Ministry of Textiles has set up FDI Cell to attract FDI in the textile sector in the country. The FDI cell operates with the following objectives:

- To provide assistance and advisory support (including liaison with other organizations and State Governments);
- Assist foreign companies in finding out joint venture partners;
- To sort out operational problems;
- Maintenance and monitoring of data pertaining to domestic textile production and foreign investment.

5.2. Foreign Investment Promotion Board (FIPB)

The FIPB is specially empowered and chaired by the Secretary, Department of Economic Affairs of the Ministry of Finance (MoF). It has been specifically set up to expedite the approval process for foreign investment proposals.

Proposals for FDI are mandatorily required to be submitted online followed by the hard copy of the proposal. The FIPB has the flexibility to examine all the proposals in their totality, free from predetermined parameters or procedures.

The recommendations of the FIPB with respect to proposals under the ambit of the non-automatic route involving an investment of US$ 218.18million or less is considered and approved by the Finance Minister. Projects with an investment greater than this value are submitted by the FIPB to the Cabinet Committee on Economic Affairs for further approval.

5.3. Regional and international trade agreements

Over the years, India has entered numerous bilateral and regional trade agreements with key trading partners. Apart from offering preferential tariff rates on the trading of goods among member countries, these agreements also enable increased economic cooperation in the field of trade in services as well as investments and intellectual property, resulting in enhanced trade liberalization.

Existing trade agreements and regulatory scenario

Some of the existing key trade agreements entered into by India include:

- Comprehensive Economic Partnership Agreement (CEPA) with Japan
- Comprehensive Economic Co-operation Agreement (CECA) with Malaysia
- Comprehensive Economic Partnership Agreement (CEPA) with Korea
- India-ASEAN Trade in Goods Agreement
- Comprehensive Economic Co-operation Agreement (CECA) with Singapore

- Free Trade Agreement with Sri Lanka (Trade in Goods)
- Agreement on South Asia Free Trade Area executed by India, Bangladesh, Bhutan, Maldives, Nepal, Pakistan and Sri Lanka
- Framework Agreement with Thailand
- Preferential Trade Agreement with MERCOSUR countries [MERCOSUR is a trading bloc in Latin America comprising Brazil, Argentina, Uruguay and Paraguay
- Preferential Trade Agreement with Chile
- Asia Pacific Trade Agreement with Bangladesh, Republic of Korea, China and Sri Lanka
- Preferential Trade Agreement with Afghanistan
- Global System of Trade Preference with 46 countries
- India Bhutan Trade Agreement
- India Nepal Trade Treaty
- Economic co-operation agreement with Finland



6

ENTRY OPTIONS IN INDIA

6 Entry options in India

Following structures are typically used by foreign investors in India:

6.1 Liaison office (LO)

Foreign corporations are permitted to open liaison or representative offices in India, subject to obtaining specific approval from the RBI, to undertake liaison activities on their behalf. These offices act as a communication channel between the Head Office of foreign corporations and parties in India. Such offices are normally established by foreign corporations to promote their business interests by spreading awareness about their products and also to explore opportunities to set up a more permanent presence in the country.

A LO in India is permitted by the RBI to undertake the following activities:

- Represent the parent company or group companies in India
- Promote export and import from and to India
- Promote technical and financial collaborations between parent and group companies and companies in India
- Act as a communication channel between the parent and Indian companies

A LO is not allowed to undertake any business activity in India and cannot earn any income in India. Expenses of such offices are to be met entirely through inward remittances of foreign exchange from the head office outside India.

Permission to set up a LO in India is initially granted for a period of three years, which is likely to be extended from time-to-time. Upon expiry of the validity period, LO may have to either close down or be converted into a company in conformity with the FDI policy.

6.2 Branch office (BO)

Foreign corporations can open branch offices to conduct business in India, which require specific approval from the RBI. A foreign corporation cannot undertake any activity in India that is not specifically permitted by the RBI.

A BO is permitted by the RBI to represent the parent/group companies and undertake the following activities:

- Export and import goods
- Render professional or consultancy services
- Conduct research work for the parent company
- Promote technical and financial collaborations between Indian companies and the parent or overseas group company
- Represent the parent company in India and act as buying and selling agents in the country
- Provide IT services and develop software in India
- Render technical support for the products supplied by parent or group companies

Normally, the BO should be engaged in the activity undertaken by the parent company. A branch office is not allowed to carry out retail trading, manufacturing, except manufacturing within SEZs, or processing activities in India. Branch offices are allowed to be established in SEZs to execute manufacturing and service activities in India without specific approval from the RBI, subject to prescribed conditions.

A BO provides the advantage of ease-of-operation and uncomplicated closure. However, since such operations are strictly regulated by exchange control guidelines, a branch may not provide a foreign corporation with the optimum structure for its expansion and diversification plans.

6.3 Project office (PO)

A foreign corporation that has secured a contract from an Indian company to execute a project in India can establish a project office in the country without obtaining prior permission of the RBI, provided:

- The project is funded directly by inward remittance from abroad
- The project is funded by a bilateral or multilateral International Financing Agency
- The project has been cleared by an appropriate authority
- A company or entity in India awarding the contract has been granted term loan by a public financial institution or a bank in India for the project

However, if the above criteria are not met, the foreign entity has to approach the RBI's Central Office for approval.

6.4 Local Indian subsidiary companies

Foreign corporations can locate wholly-owned subsidiary (WOS) companies in India in the form of private companies, subject to prescribed FDI guidelines. Furthermore, foreign corporations can establish a joint venture company with an Indian or foreign partner.

FDI in a company engaged in undertaking permitted activities is allowed under the automatic route and does not require prior approval from the GoI or the RBI. However, FDI in a company engaged in activities not covered under the automatic route require prior government or FIPB approval.

As compared to branch, liaison and project offices, a subsidiary company provides the maximum flexibility to conduct business in India. A company can be funded through a mix of equity, debt (both foreign and local) and internal accruals.

The exit procedure norms of companies are relatively more cumbersome in comparison to the other forms of business

6.5 Limited liability partnership (LLP)

LLP aims to provide the benefits of limited liability to a company, and simultaneously allow its members the flexibility of organizing their internal management on the basis of mutual agreement. LLP is a corporate body and legal entity that has perpetual succession and is separate from its partners. The liability of the partners is limited to their agreed contribution to the LLP.

100% FDI is permitted in LLP with prior approval of FIPB in sectors where 100% FDI is allowed under the automatic route. However, foreign institutional investors/foreign venture capital investors are not permitted to invest in LLPs.

Capital contribution by partner in a LLP should only be in the form of cash. Furthermore, LLPs are not permitted to avail ECBs.

LLPs with FDI are not eligible to make any downstream investments. Indian companies with FDI are permitted to make downstream investment in LLPs only if both the Indian company and the LLP operate in sectors where 100% FDI is permitted under the automatic route and no FDI-linked conditions are attached.

Conversion of company with FDI into LLP is permitted only on prior approval of FIPB or Government of India.

Taxation of LLP is similar to taxation of general partnership firms, whereby the profits are taxed only in the hands of the LLP. Remuneration of individual working partners and interest payment to partners are tax deductible within prescribed limits, subject to conditions.



7

INVESTMENT OPPORTUNITIES IN TECHNICAL TEXTILES INDUSTRY

7 Investment opportunities in Technical Textiles industry

7.1 Specific products / segment for investment opportunity

Segment / Product	Present Indian market size	Expected growth for next 5 years (CAGR)	Value proposition
Geosynthetics / Geomembranes	~ US$ 10 mn	25% +	• Geomembranes find major application in landfills, ash ponds, etc. • Issue of waste management has received increasing attention from public and government over the years. With strict environmental guidelines coming in force, landfill etc. utilizing geomembranes will become a norm • Currently all the demand is met through imports, which attracts an import duty of ~ 30% • Since domestic demand is not large enough as of now and the technology level is high, Indian investors need to explore possibilities of international partnership with buyback arrangements
Protective wear / Clothing for defense end-use	~ US$ 350 mn	15%	• Indian armed forces have ~ 1.45 million active personnel and 2.20 million reserve personnel. Almost 25% of active are involved in high risk, counter insurgency & special operations in super high attitude areas and require protective clothing. • Despite a high demand, there are very few private Indian players engaged in manufacturing protective apparel for Defense use because of significant R&D investments, long trial / approval process and high technology input. • It is advisable for Indian business houses to initially go for a marketing partnership or technology transfer with international suppliers and then evaluate manufacturing in India.

Segment / Product	Present Indian market size	Expected growth for next 5 years (CAGR)	Value proposition
Agro textiles / Shade nets	~ US$ 10 mn	20-25%	• Indian farm yield for most of the agri products are mostly below the global averages. Protected cultivation has still not attained its expected potential which can boost the productivity. However, the working group on Horticulture and Plantation crops for 12th Five year plan has indicated a need of US$ 1,818 million for area expansion programmes in integrated project mode including protected cultivation. • India has a potential demand of shade nets to cover 100,000 Ha under shade nets, while current penetration is hardly 7-8% • The current market consumption is driven by largely by government subsidy schemes. But, the key success factor for a shade net manufacturer will be the requirement of engaging with farmers, famer groups, etc. at the grass root level to educate them about the benefits and handhold them for implementation
Automotive textiles / airbag fabric	~ US$ 12 mn	18-20%	• The current production of passenger cars in India is ~ 3.1 mn units, out of which ~ 500,000 are exported. Since 2005-06, the production has grown at a CAGR of 16% whereas exports have grown by 19% CAGR • Increasing income and safety concerns have seen increase in domestic sales of cars with airbags in last few years. However the current market size is still small. The demand can grow tremendously by introduction of mandatory use just like seat belts, but that may still be few years away. • Successful investment would need excellent market and raw material linkages, while the domestic market demand alone may justify plant viability. Hence, this venture makes sense in partnership with an international player partnership with buyback arrangement.

7.2 Industry's perception

i. "Advantage India" for investors in India's technical textiles sector

Shishir Jaipuria
Managing Director
Ginni Filaments Ltd.

India's technical textile sector is going through very exciting times at present. On the demand side, with 1.2 billion population, expanding middle class and urban population, higher disposable incomes, integration with global markets and infrastructure growth are triggers for growth of the sector. While on the supply side, low manufacturing costs, indigenous availability of raw materials at competitive rates, availability of technology, expansion of modern trade, Public Private partnership in infrastructure, Government support to the sector (TUF, Technology Mission etc), are major enablers. Hence, there are enough reasons for the investors to diversify into technical textile sector.

Pradeep Deshpande
Head - Textile Machinery Division
Illies Engineering (India) Pvt Ltd

India today is in growth mode with all around growth in Infrastructure. The infrastructure growth like, roads, air ports, has spurred demand for Geotextiles, The continuous growth in Automotive sector has led to increasing demands for Auto carpets, Headliners. The increasing disposable income due to growth of middle class has led to improved life style. Similarly increasing health awareness is contributing to Indians opting for non-woven hygiene products. The growing medical tourism is also contributing to increased demand for health care hospital products. The packaging and soft luggage industry is creating demand for nonwoven and coated materials. Furnishing and Hometex industry is growing in all major cities creating demand for Mattress, Pillows, felts, Wipes, Carpets in home and offices. Also the demand is increasing in sports ware with products like shoes, interlinings, tents, Sleeping bags, parachute fabrics.

All the above factors offer an excellent opportunity for Indian investors since the investments in manufacturing of Technical textiles of which Nonwovens

are an integral part. Also this area is rather new to India and not much of investment has been done so far.

Vikas Sharan
Vice President
A.T.E. Enterprises Private Limited

In my opinion, India currently is a nascent market for technical textiles, but showing steady signs of growth and sustainability. This pace has to be nurtured in order to make this market sustainable over a period of time when it starts touching the lives of people and industries of this country in more ways than one. The central as well as the state govt. introduced schemes should offer a friendlier environment for the investors to feel secure about their investments and support their endeavours by offering specialized services to their marketing needs.

II. Segments/products in India offer highest growth and investment potential

Shishir Jaipuria, Managing Director, Ginni Filaments Ltd.

We have seen significant growth in Meditex, Packtex, Geotex and Mobiltex in last few years. Obviously the growth was seen in regions where these segments were more evolved. However the past trends may not actually reflect the future course of the growth as the technical textiles sector is yet to show its full potential in the overall development scenario. I would say that with the success stories reaching fast to other regions/sectors, they would be replicated there too. I personally feel that Indutex and Protex will have a brighter future. Looking to investment trends, western region namely, States of Gujarat and Maharashtra and Southern Region, namely, Tamil Nadu and Karnataka seem to have better investment potential.

V. Kannan
Vice President - Polymer Division
Reliance Industries Ltd

The potential for technical textiles in hygiene and agrotextile applications is significant. India demonstrates potential of 22 billion pieces of sanitary napkins, 28 billion pieces of baby diapers, PP non-woven single-use medical

wear and hospital under pads for approximately 1 million beds, 1 billion banana covers per annum, 4 billion grape covers per annum, 3 billion Alphonso Mango covers, and 2.5 billion pomegranate covers. The Indian 60+ demographic is expected to reach a size of 198 million by 2030.

Low penetration, low per-capita consumption, untapped rural markets, increase in senior population demographic, growing interests in India's medical tourism sector, and increased awareness of health and hygiene are some of the key factors driving the growth of these products. While domestic manufacturers of hygiene products are limited, the country is still predominantly reliant on imports. Nonetheless, with a growing population and diversifying demographic, the potential for investors in these segments of technical textiles is lucrative and significant.

Pradeep Deshpande
Head - Textile Machinery Division
Illies Engineering (India) Pvt Ltd

The segments like Automotive with products like Carpets, Headliners, filters and railways with seating cushions bed roll and pillow covers, Hygiene Segment with products like face masks, surgeon gowns, hospital under pads, baby Diapers, Sanitary Napkins, Adult Diapers, cotton rolls are in increasing demand.

In the Buildtex segment, products like hoardings, Tarpaulins, Awnings and canopies are the potential ones. There is a high growth potential in packaging and soft luggage from synthetic leather.

Vikas Sharan
Vice President
A.T.E. ENTERPRISES PRIVATE LIMITED

Till now, Packtex has seen the highest growth in the country, since affordable technology (spun bond) has been made available to the Indian entrepreneurs from the Chinese, thereby shunting the Europeans out from this sector, barring specialised processes. But I see a big growth for the converter segment now, since there is a big chasm between the roll good manufacturers and converters.

Personal hygiene is one area where a lot of emphasis and significance needs to be directed, since this is population dependent and we as a country, have it in all categories, whether it is babies, female population or adults/senior citizens with bladder/bowel dysfunctions. Of course, a culture shift coupled with awareness and disposable income are necessary to make it a success for the years to come.

Another area is for needle punched products for filtration, automotives and artificial leather. However, the cost of bringing in technology in this area is much higher and hence, there still is skepticism in going in for a green field project unless there is a JV or buyback involved. The few domestic manufacturers who have been at it since many years, however continue to keep working in this sector.

Coating and lamination also becomes a very important aspect of technical textiles.

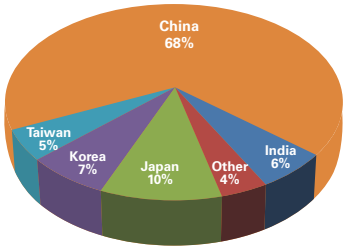
7.3 COE's perception

I. Predominant demand and supply scenario

ATIRA: Predominant supply and demand markets for composites are Industrial filtration, geo textiles and thermal insulation. Most of the advanced technical textiles are made of highly advanced fibres modified to meet the end use application criteria. Mostly these fibres and sometimes the whole products are being imported in India.

DKTE: Nonwoven material has wide range of application in all the twelve sub-segments of Technical Textiles. In FY 2010-11, Spunbond showed recorded growth over 9% where as overall nonwovens grew by 6%.

Asian market of nonwovens in 2011 was 2.6 million tones, out of which only China contributed about 68% and Japan stood second with 10% of the total production.



India consumes hardly 130 gram per capita nonwoven material where as it is predicted by 2020 this will grow at 500 gram per capita with the rate of 13% per year. Looking at changing life style and

population, huge domestic potential lies in near future.

PSG: For Indutex segment, the predominant demand is for Belts (Power Transmission, Material Conveyor), Tyre Cord Fabric, Coated Fabrics, Coated Abrasives, \ Sound absorption and Acoustic materials, Automobile Carpets, AGM Glass Battery Separator, Paper Making Felts, Filtration Textile products, Ropes & Cordages.

SITRA: Surgeons' wear, operating drapes & hospital linen, wound dressings/bandages, sutures, vascular grafts, artificial ligaments & tissue scaffolds, hernia meshes, soft wipes, face masks, 3D Spacer fabrics as well as a whole range of personal care disposables include Sanitary napkins/tampons/panty liners for fem care, makeup removers & nail polish removers, balls and buds for cosmetic applications, baby diapers, adult incontinence diapers/under pads, – just to mention a few are all Meditex products which have a demand in the market. Of the various end products within Medical Textiles, it will be of interest to note that sanitary napkins and surgical dressings contribute to two-thirds of the total market size. In times to come, both production and consumption of Medical Textiles is likely to increase and to sustain the momentum of growth, certain pro-active measures may require to be put in place.

WRA: Today more than 40% of total manufacturing activities of many industrialized countries comprise of technical textiles. Technical Textiles on its own merit has an important place in material science along with micro – electronics and bio-technology. CAGR of technical textiles in the west is 2.4% where as it is 6.5% in India & China as predicted by David Rigby's Survey. Various MNC's and globally accepted brands like Nike, Adidas, Reebok, Crocodile, La Coste, Target, Spencer, etc introduced efficient sportwear and accessories and linked its functional properties to the fashion aspects of such products.

Being a labour intensive sector about 15 million employment was generated in EU in 2005 – over 5% of the EU labour force. US, Hongkong, China, U.K have strong presence in Sportex market. Sports have boosted the manufacturing industry in accelerating economics of countries like India and China. Major products of Sportex sector are dominated by sports apparel which constitutes around 50% of the total demand.

ii. Measures for encouraging the growth of opportunities in these markets

ATIRA: Factors like the global economic change, strong government support, introduction of appropriate legislation, development of tests and standards and widespread recognition of the need for more trained personnel, etc. also playing a valuable role in driving the industry to the farthest destination.

PSG: Availability of data on quantum of requirement, product specification, awareness of these products, incentives for manufacturing, market segment, consumption details, financial support for new business start ups, etc. are major areas for growth of opportunities

ii. Potential segment of Technical Textiles in India?

ATIRA: Considering the global economic and industrial climate, dry and wet filtration of the industrial pollutants is going to play a major part. If the government of India makes legislation for using geogrids to make roads and highways to improve their life cycle then the field of geotextiles will be very promising and lucrative.

DKTE: Disposal hygiene products and medical segment like personal care, baby diaper and sanitary napkins, packaging industry, automotive industry, industrial applications like filters, civil engineering applications like Geotex material for road construction and erosion control.

WRA: Use of sporting gear is proportional to the per capita purchase power. Besides, sports are treated as a recreational activity in India. With the rise in income, spending on recreational and leisure activities also will rise. It is predicted that expenditure on sports will grow with a CAGR of 8.9% from US$ 1 billion in 2005 to US$ 6 billion in 2025. Sports and leisure activities including adventure sports etc are gaining prominence in India as the country is competing with a growing number of athletes and sports personnel in the national and international sports events. Government of India and many corporate sponsors are providing adequate funds and other support for the sports and welfare of the sportspersons.

India is among the largest sports goods manufacturers of inflatable balls, hard balls like cricket balls, cricket bats, etc. It has a large textile industry

with good downstream manufacturing facilities. With the growth of organized retailing, when international brands have entered the Indian market, it will be but natural that indigenous consumers will demand similar branded products from the domestic Sportex industries. Since various centres have come up with sport equipment and accessories, Sportex products belonging to technical textiles are bound to be developed sooner. Technology has been percolating down from the global Sportex manufacturers to Indian manufacturers. Many of the multinationals engaged in the business relating to Sportex are setting up facilities in India due to the advantage of low cost of production, skilled and cheap labour, etc.

SITRA: The size of Indian healthcare industry, during 2007-08, was pegged at US$17 billion and the same was projected to grow at more than 17 % per annum to touch a whopping US$ 36 billion by 2012-13, translating to a contribution of some 8% of GDP, the factors responsible to this phenomenal rise being the ones of increasing per capita spending on healthcare products, greater exposure to international products in this area, importance and awareness of healthcare insurance and medical tourism. Of this, the share of revenue generation by Private hospitals was put at US$ 29.3 billion, up by a near US$ 16.3 billion from the 2007-08 level of US$ 12.9 billion.

In a related development, Medical Textiles business, in all probability, was expected to reach US$ 616 million during 2012-13 which is almost the double its size of US$ 331 million for 2007-08.

iv. "Advantage India" for investors in India's technical textiles sector

ATIRA: Indian population could cater as the largest consumer of the technical textiles in direct or indirect ways if approached properly, especially with large part of the society comprising of middle class families with rising income year on year.

PSG: Strong raw materials fiber base for natural and synthetic fiber. Availability of technical man power, domestic consumption and COEs are other key advantages

WRA: Growth of technical textiles in industrailised western countries has been stagnating at 2.4% per year where as the CAGR in Asian countries particularly China and India is forecasted as 6.5%. India with its strong downstream textile industry has strong potential to grab a substantial share

of the world market for technical textiles in the new decade. Growth of organized retailing, over 250 million of middle class population with disposable income, low cost of manufacturing and availability of skilled manpower at relatively cheaper costs are the obvious advantages India has over its competitors in this sector.

SITRA: In the last three years the Indian Textiles Industry has witnessed several transitions from a global recession to unprecedented price volatility. During the two years of economic slowdown, the industry showed significant resilience in making a rapid turnaround, assisted by a series of fiscal stimuli and Plan Schemes of the Government.

a. Capital subsidy under Restructured Technology Up-gradation Funds Scheme (TUFS) for Technical textile machinery

b. Textiles parks under Scheme for Integrated Textile Parks (SITP)

c. About 14 functional special economic zones (SEZs) for textile-related activities which provide for duty-free imports and domestic procurement for 100% exports

d. Integrated Skill Development Scheme (ISDS) to address the skill gaps in various segments of the textiles value chain.

e. Technology Mission on Technical Textiles (TMTT) for creating new COEs with facilities like testing & evaluation of products, Resource Centre with I.T. Infrastructure, incubation unit, recurring expenditure support for hiring international experts; and provide support for new investments in the sector, contract research

f. Foreign Direct Investment is permitted through automatic route without any limit

Moreover, income of Indian consumer has been on the rise; the per capita income has seen an increase from US$ 845 in the year 2009-10 to US$ 991 in 2010-11. The 'affordability factor' brought about by this upsurge is a good enough reason to expect more discretionary spending on technical textile products. With its one billion plus population, the Indian market offers profitable and assorted opportunities for foreign exporters with the right products, services, and commitment.

7.4 Research and Development

Technical textile is a knowledge-based sector. Currently, the majority of the market share in technical textiles is captured by less R&D-intensive segments such as Packtex, Clothtex, Hometex and Sportex. Segments such as Geotex, Oekotex, Agrotex, etc. demonstrate ample opportunities for investments in R&D. To encourage R&D, the government is providing assistance to the extent of US$ 0.04 million under TMTT scheme.

7.5 North East Regional projects in Geotex and Agrotex

Geotextiles are used most commonly in the transportation market for construction of roadways because of their separation, reinforcement, and filtration functions. Geotextiles are also used for hill and slope protection, and for river bank erosion control. While traditional, existing efforts towards maintaining developed infrastructure through relaying and repairs is significant, these efforts insufficiently address the challenges to infrastructure in the Northeast region of India. The government is thus promoting usage of geotextile in the Northeast states with a budgeted expenditure of US$ 90.91 million.

Agriculture is a key driver for India's economy. However, agricultural activities are carried out mostly under natural conditions of temperature and humidity. As a result of the absence of control factors, the country's producers face various challenges including unsatisfactory yield, marred quality of produce, damages to the produce, regional limitation on cultivation, and seasonal limitation on cultivation. Use of agrotextile products like shadenets, bird protection nets, windshields, etc. can help in addressing the problems that the agriculture sector is facing. Given the significant vulnerability of the agricultural sector in the Northeast, Government of India has proposed a scheme with proposed expenditure of US$ 10 million to promote the application and use of agrotextiles in this region of the country.

7.6 Skill development

Conducting joint promotion and training exercise with institutions, such as involved in extension activities for farmers like agricultural universities, co-operatives, agrochemical and fertilizer manufacturers, financial

institutions/banks, on usage of Agro-textiles, provides ample opportunities for stakeholders for skill exchange and knowledge transfer.

7.7 Integrated Textile Parks and Technical Textiles parks

Scheme for Integrated Textile Parks has been started by the Ministry of Textiles, Government of India. The purpose of the scheme is seeking green field investments in textiles sector on a Public Private Partnership (PPP) basis with the objective of setting up of world class infrastructure for textiles industry. It is estimated that the scheme would leverage an investment of over US$ 1,636 billion and provide employment to 4,00,000 textile workers. The product mix in these parks includes technical textiles which has been a thrust sector for Ministry of Textiles.

India's technical textiles sector provides ample opportunities for growth and investment. The government is encouraging investments in technical textiles through business start-up assistance under TMTT, which is provided to medium and small enterprises in the form of cost support for preparing project reports and handholding support for potential entrepreneurs till the completion of the projects. Such assistance is available through empanelled consultants under TMTT (as mentioned in following sections).



Prashant Agarwal
Joint Managing Director, Wazir Advisors

… several attractive technical product segments where Indian investors can venture…

Manufacturing of conventional textiles has moved from one part of the globe to another that was cheaper than previous. Today Asia is the manufacturing hub, tomorrow it could be Africa. But an interesting point to see is that despite this transition where US, Europe and Japan are no longer leaders in conventional textiles; they are a major force in technical textiles manufacturing today also. On one hand where technical textiles require significant R&D inputs; it generates proportionally high returns and market presence. This has to be the natural course of Indian textile industry to hedge against new emerging competitors and command a better bottomline.

"While the opportunities exists across the segments", Mr. Agarwal added "It is important for any investor to do a thorough market assessment and go for business model which will suit the current need but is flexible enough to foresee changes happening in future as well."



8

KEY STAKEHOLDER IN TECHNICAL TEXTILE INDUSTRY IN INDIA

8 Key Stakeholder in Technical Textile industry in India

1. Ministry of Textiles

The Ministry of Textiles is responsible for the formulation of policy, planning, development, export promotion and regulation of the textile sector in India. This includes all natural, artificial, and cellulosic fibres that go into the making of textiles, clothing and handicrafts. As of January 2013, the Union Minister of Textile is Shri Anand Sharma. Secretary (Textiles) provides the leadership and operational guidance to the Ministry of Textiles with the assistance of four Joint Secretaries, Economic Advisors and Development Commissioners for Handlooms and Handicrafts, Textile Commissioner and Jute Commissioner.

The principal functional areas of the Ministry include:

- Textile Policy & Coordination
- Man-made Fibre/ Filament Yarn Industry
- Cotton Textile Industry
- Jute Industry
- Silk and Silk Textile Industry
- Wool & Woollen Industry
- Decentralised Powerloom Sector
- Export Promotion
- Planning & Economic Analysis
- Integrated Finance Matters
- Information Technology

Contact Ministry of Textiles:

Director (Technical Textile)
Ministry of Textiles
Room# 235, Udyog Bhawan,
New Delhi
T : +91-11-23010494
W : http://texmin.nic.in/

2. Office of Textile Commissioner

The Office of Textile Commissioner formulates and implements various schemes of the Government of India in an industry-friendly manner. The major strength of this office lies in its very strong, technical and economic wing, which is manned by professionally qualified and experienced officers. In addition, this office has wide reach across India through its 8 regional offices and 14 powerloom service centers in major textile clusters. The regional offices coordinate with the head office to provide requisite technical support to the industry to successfully meet the challenges of the globalised economy.

Contact Office of Textile Commissioner:

Deputy Director (Technical Textile)
Office of the Textile Commissioner
New CGO Building, 48-New Marine Lines, Mumbai-400 020

T : +91-22-22003918
F : +91-22-22004693
E : texcomindia@txcindia.com, texcomindia-otxc@nic.in
W : www.txcindia.gov.in

3. COE: Meditex (SITRA)

With support from the Ministry of Textiles, SITRA has established Centre of Excellence in Medical Textiles in the field of Technical Textiles. The COE is a one-stop shop for addressing the issues and concerns of medical textile fraternity. The COE has facilities for Research and Development, testing, incubation, training and a well-endowed information resource centre for the usage of the Industry stakeholders.

Contact SITRA:

Dr. Prakash Vasudevan, Director
P.B.No. 3205, Coimbatore Aerodrome Post,
Coimbatore - 641 014, Tamil Nadu, India.

T : 91-422-2574367-9, 6544188, 6541488
F : 91-422-2571896
E : sitraindia@dataone.in
W : www.sitrameditech.org.in

4. COE: Protex (NITRA)

NITRA has been designated as Centre of Excellence for Protective Textiles by the Ministry of Textiles, Government of India. The centre was established with financial assistance from Ministry of Textiles, Government of India. The basic objective of setting up of Centre of Excellence for Protective Textiles is to promote Protex segment of technical textiles and to provide infrastructural support and facilities at one place for the convenience of its manufacturers.

Contact NITRA:

Dr J V Rao, Director
Northern India Textile Research Association,
Sector-23, Raj Nagar, Ghaziabad-201002

T : 0120-2786434/451, 2783334/586/592/638/090/094
F : 0120-2783596
E : mail@nitratextile.org
W : www.nitracoeprotech.org

5. COE: Agrotex (SASMIRA)

SASMIRA as the Centre of Excellence for Agrotextiles along with alliances is working towards the demonstration, promotion, training, testing and evaluation of Agrotextiles in the country at the behest of The Office of the Textile Commissioner, Ministry of Textiles, Government of India.

Contact SASMIRA:

U K Gangophyay, Executive Director
The Synthetic & Art Silk Mills' Research Association,
Sasmira Marg, Worli, Mumbai - 400030

T : +91 - 022 - 24935351-52
F : +91 - 022 - 24930225
E : sasmira@vsnl.com
W : www.Agrotex.sasmira.org

6. COE: Geotex (BTRA)

BTRA is recognized as a Centre of Excellence for Geotex by the Ministry of Textiles, Government of India. BTRA established a new Geotex Laboratory with testing facilities to test Geotextiles, Geomembranes, Geocomposites, Gabions, Geosynthetic Clay Liner, Geogrids, Prefabricated Vertical Drain etc. BTRA is also strengthening its information resources on Geotex by procuring various books and international test methods such as ASTM, INDA, EDANA, ISO, etc. Apart from testing & development, BTRA provides training to users and entrepreneurs in Geotex as well as in technical textiles. Also consultancy is provided to entrepreneurs to start a new manufacturing plant for geosynthetics by preparing project proposal product wise.

Contact BTRA:

Dr. Ashok N. Desai, Director
The Bombay Textile Research Association, Lal Bahadur Shastri Marg,
Ghatkopar(W), Mumbai - 400 086

T : 91 - 022 2500 3651/2652/2117/1119/1135/7891/7892/2458
F : 91 - 22 - 2500 0459
E : btra@vsnl.com, btralibrary@yahoo.co.uk
W : http://www.btraindia.com/Geotech.asp

7. COE: Composites (ATIRA)

Established on December 13, 1947 and started in 1949, ATIRA was recognized by the Council of Scientific and Industrial Research under the Ministry of Science and Technology, Government of India. It was later linked to the Ministry of Textiles, and has been appointed as the COE Composites at the behest of Ministry of Textiles, Government of India.

Contact ATIRA

Dr. A.K. Sharma, Director
Ahmedabad Textile Industry's Research Association,
P.O. Ambawadi Vistar, Ahmedabad - 380 015, India
T : (079) 26307921, 26307922, 26307923, 26305131, 26305132, 26303363 Extension: 350
F : (079) 26304677, 26301969
E : atiraad1@sancharnet.in
W : http://atira.in/COE/New_index.htm

8. COE: Indutex (PSG)

PSG College of Technology has set up the COE in Industrial Textiles; this segment of Technical Textiles has a wide range of products such as Conveyor Belts, Automobile Textile, Filters etc. The COE is a one-stop shop for the industry for everything related to Indutex field of Technical Textiles.

Contact PSG College of Technology:

Dr.G.Thilagavathi, Prof & Head, Department of Textile Technology & Department of Fashion Technology

PSG College of Technology, Peelamedu, Coimbatore – 641004.

T : +91- 422-2572177, 2572477, 2580455, 2578455, 4344777 Ext: 4169
E : coeindutech@mail.psgtech.ac.in, psgindutech@gmail.com
W : www.psgtech.edu/coeindutech

9. COE - Nonwovens (DKTE Society's Textile and Engineering Institute)

Ministry of Textiles has appointed DKTE Ichalkaranji as the CoE for Nonwovens. The COE is a one stop shop for the industry looking for everything related to Nonwoven field of Technical Textiles.

Contact DKTE

Prof (Dr) P. V. Kadole
Rajwada, P.O.Box. No.130, Ichalkaranji, Kolhapur, Maharashtra - 416115

T : 0230 - 2421300,2432340, 2439557 to 59
E : dkte@sancharnet.in
W : www.dktes.com

10. COE Sportex (WRA)

WRA is also recognised as Centre of Excellence for Sportex and will have facilities such as Modern Accredited Testing Laboratory, Prototype Development plant and machineries, Incubation Centre, Resource Centre with IT infrastructure, Training facility for HRD in Technical Textiles, Formation of standards, specifications, norms, Sample Bank, Seminar, Workshops, FGD, etc.

Contact WRA:

M.K. Bardhan, Director
Kranti Surya Mahatma Phule (Akabar Camp) Road,
P.O. Sandoz Baug, Kolshet Road, Thane - 400607 India

T : 91-022-25314294/4305,
F : 91-022-25868365
E : wra@wraindia.com, wrathane@gmail.com
W : http://wraindia.com/PRESS%20RELEASE.htm

11. Indian Technical Textile Association (ITTA)

To facilitate the growth of Technical Textile industry in India, the Office of Textile Commissioner, Ministry of Textiles, Government of India recognized the need to engage the industry's active participation to address the issues and concerns and suggest policy framework that would lay the foundation for this sector. This has led to the formation of ITTA, an industry think tank that facilitates the usage and production of technical textiles in India, thereby helping the industry grow internally and become a key player in the international market.

Given that government policy has played a critical role in the advancement of technical textiles, ITTA is expected to maintain close interaction with Government of India in formulating a national technical textiles policy that focuses on removing the ambiguities in the system that are hampering the growth of the sector, help bring legislation that will help spur usage in India and recommend fiscal and non-fiscal norms that will assist the industry in achieving its true potential.

ITTA aims to become the premier organization for representing the industry's interests and for creating a policy environment that assembles and addresses the concerns of stakeholders in the technical textile sector. ITTA would become an ideal forum for overseas and domestic companies to explore the vast potential available for JVs, strategic and marketing alliances, joint product development, etc, by organizing business meets with delegates from various countries. ITTA will disseminate various policies, market information and relevant statistics to its members.

Contact ITTA:

Indian Technical Textile Association, 3rd Floor,
Sasmira, Sasmira Marg, Worli, Mumbai – 400 030, India

T : 022 – 24945372 / 24949983
E : info@ittaindia.org
W : http://www.ittaindia.org/

12. Federation of Indian Chambers of Commerce and Industry (FICCI)

Established in 1927, FICCI is the largest and oldest apex business organisation in India. Its history is closely interwoven with India's struggle for independence, its industrialization, and its emergence as one of the most rapidly growing global economies. FICCI has contributed to this historical process by encouraging debate, articulating the private sector's views and influencing policy. A non-government, not-for-profit organisation, FICCI is the voice of India's business and industry. FICCI draws its membership from the corporate sector, both private and public, including SMEs and MNCs, and enjoys indirect membership of over 250,000 companies from various regional chambers of commerce.

FICCI has a dedicated committee on technical textiles which works closely with Ministry of Textiles in the cause for developing the technical textiles sector in India. FICCI has organised buyer-seller meets, seminars, conferences and Technotex 2011, the biggest event on technical textiles in India. FICCI also helps Ministry of Textiles in identification of HS Codes for Technical Textiles.

Contact FICCI:

FICCI, Federation House, Tansen Marg, New Delhi 110001
Phone: 91-11-23738760-70, 23708065
Fax: 91-11-23320714, 23721504
E : nisha.goel@ficci.com
W : www.ficci.com

13. Bureau of Indian Standards (BIS)

The Bureau of Indian Standards (BIS) is the national standards body working under the aegis of Ministry of Consumer Affairs, Food & Public Distribution, Government of India. It was established by the Bureau of Indian Standards Act, 1986 which came into effect on 23 December 1986. The Minister in charge of the Ministry or Department having administrative control of BIS is ex-officio President Emaad Amin of the BIS. The organization was formerly known as the Indian Standards Institution (ISI), set up under the Resolution of the then Department of Industries and Supplies No. 1 Std.(4)/45, dated 3 September 1946. The ISI was registered under the Societies Registration Act, 1860. One of the major functions of the Bureau is the formulation, recognition and promotion of the Indian Standards. BIS is also working on the standards for Technical Textiles with cooperation from Ministry of Textiles.

Contact BIS:

E : txd@bis.org.in
W : www.bis.org.in

14. Project Management and Monitoring Consultant (PMMC) for TMTT

Ministry of Textiles has launched TMTT to promote technical textiles in the country. For effective implementation and attracting investments in the sector, Ministry of Textiles has engaged Ernst & Young Pvt Ltd (EY) as Project Management and Monitoring Consultant (PMMC). EY is providing it services to Ministry of Textiles in consortium with Wazir Advisors.

Ernst & Young is a global leader in assurance, tax, transaction and advisory services. Worldwide, our 141,000 people are united by our shared values and an unwavering commitment to quality. We make a difference by helping our people, our clients and our wider communities achieve their potential.

Wazir Advisors is a management consulting firm based out of India that advises clients globally on business strategies, mergers and acquisitions, joint ventures, funding and investments. Wazir is focused on the Indian consumer segments like Fashion & Lifestyle, Food & FMCG, Education, Media & Entertainment, Health & Wellness, Consumer Durables, etc.

Contact PMMC:

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W : www.ey.com/india

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M : +91 97698 25350
W : www.wazir.in

15. FDI Cell to attract FDI in the textile sector

Ministry of Textiles has set up a FDI Cell to attract FDI in the textile sector in the country.

Enquiries can be made to:

Deputy Economic Adviser, Ministry of Textiles
Room No. 550, Udyog Bhawan, New Delhi-110011.

T : +91-11-23061380
E : promodita@nic.in

16. Synthetic & Rayon Textiles Export Promotion Council (SRTEPC)

The Synthetic & Rayon Textiles Export Promotion Council (SRTEPC) was established in 1954 by the Government of India, Ministry of Textiles. The Council has its Head Office in Mumbai and Regional Offices in Delhi & Surat. Membership at present is over 3500. Synthetic Rayon and Blended Textiles items including fibres, fabrics and made-up items fall under the purview of this Council. In order to help the Indian exporters and manufacturers to compete successfully in the world markets, the Council renders assistance as follows:

- Identify markets for their products.
- Introduce them to appropriate overseas importers.
- Assist them financially or otherwise in their efforts.

- Advise them on situations in the different overseas markets by conducting studies & surveys.
- Provide opportunities to give them and their products exposure in the overseas markets by sponsoring their delegations and items.
- Advise them on import export policy and procedures.
- Resolve their problems about shipping and transport.
- Maintain liaison with the authorities to convey to them the requirements of industry and trade and arrange adaptation of policy framework accordingly.

Contact SRTEPC:

Head Office: The Synthetic & Rayon Textiles
Export Promotion Council
Resham Bhavan, 78, Veer Nariman Road,
Mumbai - 400020, India.
E. L. Paulo (Acting Executive Director and Director & Secretary)

T : (+91-22) 22048797, 22048690
F : (+91-22) 2204 8358 / 2281 0091
E : srtepc@vsnl.com; srtepc@srtepc.org
W : www.synthetictextiles.org

17. The Cotton Textiles Export Promotion Council of India (TEXPROCIL)

Since its inception in 1954 as an autonomous, non-profit export promotion body, TEXPROCIL has become the international face of Indian Cotton Textiles successfully facilitating exports. For the foreign buyer, it has opened the entire range of Indian cotton yarns, fabrics and made-ups and has become the one-stop source for it. While for the discerning Indian seller it has brought within reach the opportunities afforded by the global market. The activities of TEXPROCIL extend to all areas related to the promotion of exports. Collation and dissemination of information, fielding of trade enquiries, administering quotas, facilitating an interface between domestic manufacturers and the global market and settling of disputes are some of the activities of the Council. One of the most important functions of TEXPROCIL is the collection of vital market information and collation of the

same. Information with regards to new products, new ranges, government policies, rules and regulations, changing trends, quality standards, products commanding greater demand in the global markets and statistics about the exports of Indian cotton textiles are disseminated regularly. This not only makes TEXPROCIL the premier repository of relevant information but also provides the key inputs for both the Indian seller as well as the foreign buyer in their respective efforts.

Contact TEXPROCIL

The Cotton Textiles Export Promotion Council
Engineering Centre, 5th Floor, 9 Mathew Road,
Mumbai 400 004, INDIA

T : (022) 2363 2910 to 13
F : (022) 2363 2914
E : info@texprocil.org
W : www.texprocil.org.in



9

WHERE TO APPLY FOR BENEFITS UNDER GOVERNMENT SCHEME

9 Where to apply for benefits under government scheme

Technical textile manufacturers can avail the following benefits under the TMTT scheme:

a) Contract research

Investor may submit proposals for contract research (individually or partnerships with other enterprise) for development of product, process and technology in technical textile. The grant under TMTT scheme will be upto 60% excluding cost of land and building subject to ceiling recommended as US$ 0.04 million per project. It is an initial ceiling and can be relaxed by the empowered committee on merit. The guidelines for taking assistance under TMTT are as follows:

- Research shall be jointly conducted by industry and a government-approved research center, like TRAs, IITs, government-aided institutions and recognized engineering colleges, etc.
- Industries need to register with Office of Textile Commissioner. The format for registration is attached as **Annexure - II**. This one-time registration makes the industrial unit eligible for various types of assistance under TMTT, including contract research, market development assistance or business start-up assistance
- Other operational modalities can be found in the TMTT scheme on http://technotex.gov.in/TMTT%20book%20upload%2019012011.pdf

b) Market development assistance for export sales

Indian players may submit proposals for market development assistance for participating in international exhibitions. Assistance would be permissible on travel expenses by air, in economy excursion class fair and charges of the built up furnished stall. This would, however, be to the extent of 50% with a financial cap recommended at US$ 0.91 million per visit. The guidelines for MDA are as follows:

- Registration with Office of Textiles Commissioner as per the format in **Annexure - II**
- The support under this scheme is restricted to two times for a particular unit in a year
- Submission of an intimation application for participating in the exhibition as per **Annexure - III**
- Other operational modalities can be found in the TMTT scheme on http://technotex.gov.in/TMTT%20book%20upload%2019012011.pdf

c) Business Start-up Assistance

Business start-up assistance is provided only to SME units. Empanelled consultants under TMTT will provide assistance in the preparation of project reports, and provide handholding support to potential entrepreneurs till the completion of the projects. A list of empanelled consultants is as follows:

S. No.	Name of the Consultant	Contact Person	E-mail ID	Telephone Nos.	Address
1	M/s. K's Technical & Management Consultants	Shri Ravishankar G	techtex@gmail.com	+91 265 2782245 +91 9825244940	B2, Sandalwood Apartments, 22, Pratapgunj Area, Opp. Rosary School, P O Box No. 2083, Fatchgunj P.O. Vadodara 390002, Gujarat.
2	M/s. Technopak Advisors Pvt Ltd,	Mr. Amit Gugnani	amit.gugnani@technopak.com	+91 124 4541111 91 9871755992	4th Floor, Tower A, DLF Building 8, DLF Cyber City, Phase - II, Gurgaon - 122 002.

S. No.	Name of the Consultant	Contact Person	E-mail ID	Telephone Nos.	Address
3	M/s. Gherzi Eastern Ltd.	Shri A B Telasang	a.telsang@gherzieastern.com	+91 22 67339400 +91 9867770037	Wing A, Raheja Point I, Pt. Jawaharlal Nehru Road, Vakola, Santacruz (E), Mumbai - 400 055.
4	M/s Nuovatex Projects Co.	Shri Munish Tyagi	munish.t@hotmail.com, mt.nuovatex@gmail.com	+91 11 41354681 +91 9811253332	A1/312, Sajdarjung Enclave, New Delhi - 110 029.
5	M/s. Suvin Advisors Pvt Ltd.	Shri Avinash Mayekar	avinash@suvinindia.com, info@suvinindia.com	+91 22 67220000 +91 93 22906199	7th Floor, Amfotech, Opp MIDC (VARDAN),(Old Passport Office), Wagale Estate,Thane West - 400 604, Mumbai.

For any further clarifications / queries, kindly contact the undersigned:

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T : 91 90295 38610

E : abhishek1.choudhury@in.ey.com

W : www.ey.com/india

Vikas Nigam

Wazir Advisors Pvt. Ltd.

3rd Floor, Building 115, Sector 44, Gurgaon - 122 002 | National Capital Region | India

T : 91 97698 25350

E : vikas.nigam@wazir.in

w : www.wazir.in

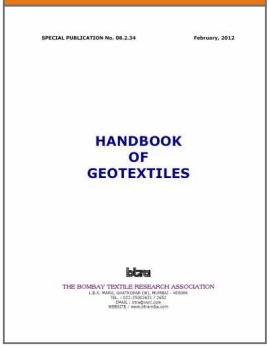


10

OTHER TECHNICAL TEXTILE PUBLICATIONS

10 Other Technical Textile publications

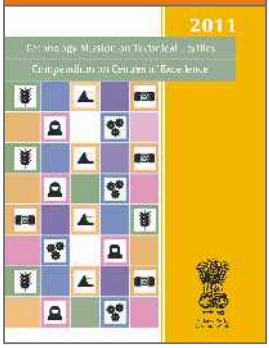
Handbook on Geotextiles



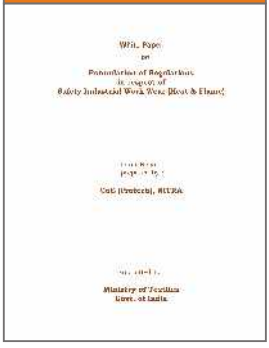
Baseline survey of Technical textiles industry in India March 2009



Compendium on Centres of Excellence



White Paper on Foundation of Regulation in respect of Safety Industrial Work Wear



Standards Compendium



Technotex 2011 report



Annexure - I

Annexure to Policy Circular No. 42 (RE-2010)/2009-14, dated 21 October, 2011

ITC HS Codes	Woven fabrics obtained from high tenacity yarn of nylon or other polyamides or of polyesters:
	Unbleached:
5407 10 11	Parachute fabric
5407 10 12	Tent fabrics
5407 10 13	Nylon furnishing fabrics
5407 10 14	Umbrella cloth panel fabrics
5407 10 15	Other nylon and polyamide fabrics (filament)
	Bleached:
5407 10 21	Parachute fabric
5407 10 22	Tent fabrics
5407 10 23	Nylon furnishing fabrics
5407 10 24	Umbrella cloth panel fabrics
5407 10 25	Other nylon and polyamide fabrics of filament yarn
	Dyed:
5407 10 31	Parachute Fabrics
5407 10 32	Tent fabrics
5407 10 33	Nylon furnishing fabrics
5407 10 34	Umbrella cloth panel fabrics
5407 10 35	Other nylon and polyamide fabrics (filament)
	Printed:
5407 10 41	Parachute fabric
5407 10 42	Tent fabrics
5407 10 43	Nylon furnishing fabrics
5407 10 44	Umbrella cloth panel fabrics
5407 10 45	Other nylon and polyamide fabrics (filament)
	Other:
5407 10 91	Parachute fabrics

ITC HS Codes	Woven fabrics obtained from high tenacity yarn of nylon or other polyamides or of polyesters:
5407 10 92	Tent fabrics
5407 10 93	Nylon furnishing fabrics
5407 10 94	Umbrella cloth panel fabrics
	Woven fabrics obtained from strip or the like:
5407 20 10	Unbleached
5407 20 20	Bleached
5407 20 30	Dyed
5407 20 40	Printed
5407 20 90	Other
	Fabrics specified in Note 9 to Section XI:(of man-made fabrics, impregnated, coated, covered or laminated with plastics)
5407 30 10	Unbleached
5407 30 20	Bleached
5407 30 30	Dyed
5407 30 40	Printed

Annexure - II

Format for obtaining the registration for technical textile units under Technology Mission on Technical Textiles (TMTT) from Office of the Textile Commissioner

1	Name and full address of unit Name of the Managing Director Tel. No. : Fax : E-mail : Website address:	
2	Annual Turn over	
3	Whether SME / Non-SME (supporting documents to be enclosed)	
4	Details of products produced/proposed to be produced	
5	Details of Products Exported and exporting country (in case of Exporter)	
6	End use applications of Products	
7	Details of existing Machinery	
8	Name and address of the lending agency along with Tel., Fax and e-mail (in case of units applying for Business start up)	
9	Name of the intervention of TMTT under which the registration is requizred (Please tick the appropriate intervention(s))	☐– Support for Business Start-up *(for engaging Empanelled Consultant* for *any new technical textile projects in MSME sector)* ☐ – Market Development Support for Export sales *(for participation in foreign technical textile trade fairs)* ☐ – Market Development Support for Sale to Institutional Buyers *(for participation in technical textile buyer-seller meet in India)* ☐ – Support for Contract Research *(for research work in technical textiles field in collaboration with government recognised research organisations / institutes)*

Place:
Date:
Company Seal:

Authorised Signatory
Name:
Designation:

Annexure - III

Application Form For participation in Technical Textile Trade Fair/Exhibition under Market Development support

1. Name of the firm with full address.

2. Particulars of fair/exhibition

   Trade Delegation:

   Name of event:

   Place:

   Country:

   From..... To .....

3. Particulars of visit

   Date of departure from India

   Date of arrival in India

4. Details of proposal(s) already Submitted in the same financial year.

5. Details of earlier participations in the same event with assistance from the scheme.

6. Name and designation of the person going abroad

Place:
Date:

Authorised Signatory

Annexure - IV

Format for Contract Research Proposal

1. Project Title
2. Broad area of Research
3. Project Duration in Months
4. Total Cost (Assistance under the scheme & Contribution of Industry Partners)
5. Project category
6. Details of Industry Partner
7. Research Team
8. Place of Research
9. Project Summary
10. Technical Details
    - Introduction (Origin and Definition of the proposal, objectives)
    - Review of the status of Research and Development in the subject. (National and International status, Importance of the proposed project in the context of the current status, Expertise available with the investigating group/Institution in the subject of the project, Patent details)
    - Work plan (Methodology, Organisation of work elements, Time schedule of activities giving mile stone)
    - Suggested Plan of Action for utilisation of research outcome expected from the project (Expected product/process outcome, target market, expected income from the research outcome)
11. Budget Estimates Summary

    (Budget for Scientists man days, Justification for the man power requirement, budget for Raw materials/consumables, Justification for costly consumables, Budget for travel, Justification for intensive travel,

if any, Budget for other costs/contingencies, Justification for specific cost under other costs, if any, Budget for equipment, Justification for the proposed equipment)

12. Time Schedule of Activities through BAR Diagram

13. List of Facilities being extended by parent institution for the project implementation (Infrastructural facilities, Machineries/Instruments Available with the Institute/Group/Department/other Institutes for the project)

4. Detailed Bio data of the Investigator(s)/ Co- Investigator(s) including name, address, date of birth, Institution's address etc. Academic Qualifications (University/College from where attained, year of Passing, Thesis title, etc)

Authorised Signatory
Unit

Authorised Signatory
Agency

Acknowledgements

We would like to express our sincere gratitude for their valuable inputs:

1. K Ramachandran Pillai, CMD, National Textile Corporation Limited
2. Sudhir Mathur, Chief Scientist, CRRI, New Delhi
3. Perry Vyas, President, SKAPS Industries
4. Pradeep Deshpande, Head - Textile Machinery Division, Illies Engineering (India) Pvt Ltd
5. Vikas Sharan, Vice President, A.T.E. Enterprises Private Limited
6. Sarojit Malik, Managing Director, Access International Capital, LLC
7. Shishir Jaipuria, Managing Director, Ginni Filaments Ltd.
8. Siddharth Y. Kusumgar, Managing Director, Kusumgar Corporates Pvt. Ltd
9. V. Kannan, Vice President - Polymer Division, Reliance Industries Ltd
10. Bombay Textile Research Association
11. South India Textile Research Association
12. Northern India Textile Research Association
13. Synthetic & Art Silk Mills' Research Association
14. DKTE Society's Textile & Engineering Institute
15. PSG College of Technology
16. Ahmedabad Textile Industry's Research Association
17. Wool Research Association

Disclaimer:

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- Application of Tegaderm™ dressings is intuitive and quick, making it easy to remember and easy to teach.

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- 3M™ Tegaderm™ dressings have been trusted by healthcare professionals throughout the world for more than 25 years.

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- 3M™ supports these products with professional and technical support, ongoing research and development, and with educational services including workshops, training and education.

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