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## VISION FOR

# INDIAN TEXTILE AND CLOTHING INDUSTRY



## 2007-2012



**Confederation of Indian Textile Industry**



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**INDIAN TEXTILE AND**  
**CLOTHING INDUSTRY**

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## Foreword

The Vision Statement for the Textile Sector formulated by the Indian Cotton Mills' Federation (ICMF) in August 2004 set the targets and action plan for all the stakeholders in our textile and clothing industry for the period up to 2010. The document, based on a study conducted by CRISIL, was well received both in the industry and Government.

The textile and clothing industry of India witnessed significant changes after the finalisation of the Vision Statement. The excise and customs duties applicable to the industry got substantially rationalised and reduced, the economy of the country started growing at a much faster pace and the bilateral quotas that regulated international trade in textile products for over 45 years got abolished in December 2004. These developments imparted a renewed enthusiasm to the industry and this has been discernible in the investment trends and export growth during the last couple of years.

Meanwhile, ICMF also went through some positive changes. Several segments of the textile and clothing industry which had not been represented in the Federation in the past showed interest in joining it and the Federation was broad based to include the representative associations of all of them. In order to represent the broad based structure of the organization, ICMF was renamed as Confederation of Indian Textile Industry (CITI) in May 2005. The Confederation now represents the entire textile chain from yarn to clothing of all fibres and also the textile machinery industry.

With all these changes, it was felt that the targets and action plan set out in the Vision Statement in August 2004 should be revisited and another round of consultations with the stakeholders should be undertaken. This is the background in which CITI decided to entrust the work of updating the Vision Statement to CRISIL, who had worked on the original Vision Statement. This time, they were also requested to set the targets and action plan for March 2012, in order to coincide with the 11th Five Year Plan which is getting finalised very soon.

I am happy to present you the Vision for Indian Textile and Clothing Industry- 2007-2012 that has been worked out by CRISIL for CITI, after a detailed study and extensive consultations with the stakeholders. I do hope that the document will form the basis for an accelerated growth of the industry through positive policy inputs and increased investments in capacity building.

New Delhi  
18. 12. 2006

Shekhar Agarwal  
Chairman, CITI



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## Section 1

# EXECUTIVE SUMMARY

## Industry poised for significant growth

- Indian textile and clothing industry has embarked on a vision of capturing market worth USD 110 bn by FY 2012 - total of domestic household consumption and exports, from USD 52 bn in FY 2006
  - ➔ The domestic household market potential is estimated to be USD 60 bn and FOB value of exports at USD 50 bn by FY 2012
- The above growth would translate into value of production of the industry (including non-household consumption) to increase at 16% p.a. from USD 27 bn in FY 2005 to around USD 76 bn in FY 2012
- The principal drivers of growth would be -
  - ➔ 5.7% p.a. growth in world trade in textiles and clothing from USD 479 bn in CY 2005 to around USD 700 bn in CY 2012 (USD 677 bn in CY 2011)
  - ➔ India's share in the export market to increase from current 4% to around 7% by FY 2012
  - ➔ Share of clothing in India's export basket to increase to 60% by FY 2012 from 48% in FY 2006
  - ➔ Domestic household market growth to be driven by increase in penetration of organised retail, favourable demographics and rising consumption & income levels
  - ➔ Domestic non-clothing consumption growth would be driven by rising usage of technical textiles, spurred by industrial growth, and increased activity in construction of residential and commercial properties thereby driving demand for furnishing items
- In order to achieve the above growth, the production output of the industry would need to almost double by FY 2012 from current levels. The higher growth in value would result from manufacturing of more value added products and rise in usage of technical textiles
- Need to increase the output would call for investments to the tune of Rs. 1,94,000 Cr. (USD 43 bn) during FY 2007-2012

### Sectoral Break-up

Sector	Investment (Rs Cr)
Spinning	55000
Weaving	38000
Knitting	10000
Processing	51000
Garmenting	40000
<b>Total</b>	<b>194000</b>

- Consequently the industry could potentially generate additional employment for 14 million people of various classes and skill. Direct employment opportunities for 6 million jobs are envisaged, with 4.4 million in the apparel sector. Indirect employment of 8 million are expected through the allied sectors.
- Employment generation in the Textile and Clothing industry during FY 2007-2012 will be more than 14 million jobs.

Sectors		Employment in Mn
Direct		6.2
	Spinning	0.3
	Weaving + Knitting + processing	1.5
	Garmenting	4.4
Indirect	Allied sectors	8
<b>Total</b>		<b>14.2</b>



## Agenda for stakeholders

- Investments in the sector, after being subdued for long have picked up in the last two financial years after several policy initiatives were taken, chief among them being de-reservation of knitting from SSI list, introduction of credit linked capital subsidy scheme and excise duty rationalisation.
  - ➔ Key segments such as weaving & processing have lagged behind in attracting investments
  - ➔ Investments under TUFs have had a positive impact on productivity as is evident from rising production without significant addition in working capacity
- The following areas require support from Government, in collaboration with the industry, in order to enable the sector to become globally competitive and aid in achieving the Vision targets -
  - ➔ Facilitating capital investment through -
    - Extension of TUFs in its present format until FY 2012
    - Reducing the cost of machinery acquisition
    - Accelerating investments in the processing segment
    - Strengthening the domestic textile machinery manufacturing base
    - Continuation of the SITP beyond 25 parks
    - Attracting FDI into the sector
  - ➔ Introducing measures for labour flexibility
  - ➔ Addressing infrastructural constraints and reducing transaction costs
  - ➔ Ensuring adequate availability of fibre for domestic consumption
  - ➔ Facilitating manpower training
  - ➔ Framing regulations for the use of technical textiles
- The agenda for the firms is to drive competitiveness and customer acceptance through focus on strengthening supply chains, developing innovative designs, compliance with certification requirements, brand promotion and acquiring scale



## Section 2

# INTRODUCTION

### *Background*

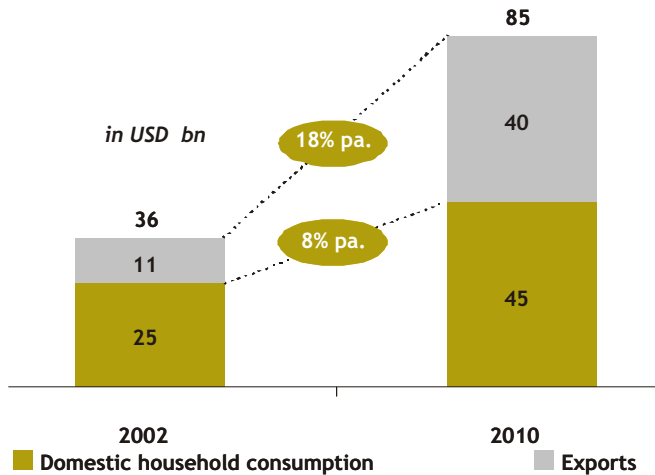
- CRISIL Infrastructure Advisory in association with Confederation of Indian Textile Industry (formerly ICMF) & industry representatives had prepared a Vision for the Indian textile & clothing industry in 2004
- The study set output and investment targets for the year 2010, policy initiatives required and agenda for individual firms and industry associations to achieve the targets for 2010
- The Vision document has been a useful tool for future policy making in the sector and in driving investment growth
- The objective of the current study is to assess the current industry scenario, assess the extent of progress made vis-à-vis the earlier vision study, arrive at output & investment targets for 2012 (final year of XIth Plan), and highlight further

### *Methodology*

- Background study on the sector through secondary research and CRISIL's databases to capture data on market size, exports, production and capacity details, policy initiatives and investments
- Conducting Vision workshops in Coimbatore, Mumbai and Delhi to deliberate issues, problems and emerging scenarios, and to capture diverse views and opinions. Participation across the entire value chain and across all the stakeholders was ensured so as to have a holistic understanding of key issues
- Feedback, views and data collated through the above mechanisms have been analysed and presented in the current document



## Industry set itself a target of USD 85 bn in market size by FY 2010



### Note

- Domestic household consumption is measured as final expenditure of households on textile and clothing items at retail level
- ➔ Domestic market number excludes non-household consumption of textiles
- Export market is measured in terms of FOB value

## Implications

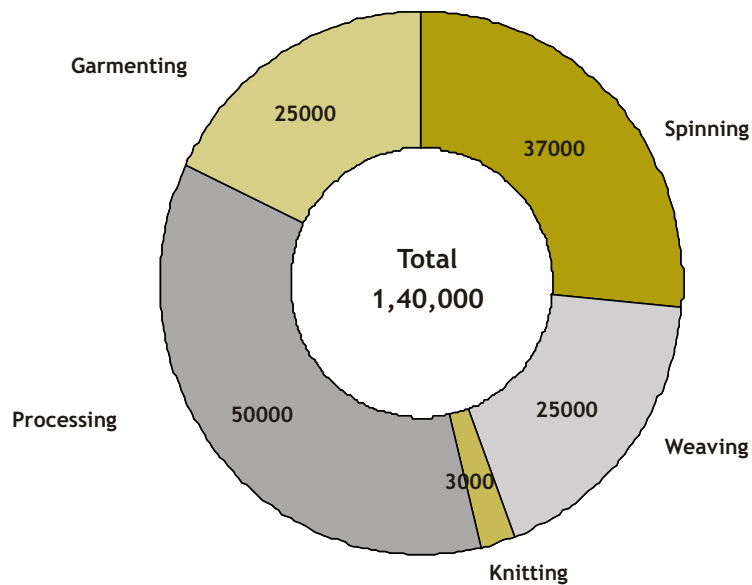
- Share in the export market to double from 3% to 6%
  - ➔ Nearly 60% of the exports would comprise garments
- Over 12 mn jobs would be created - 5 mn jobs through direct employment, and another 7 mn jobs in allied sectors

## Drivers of growth

- Abolition of four decades old quota system in world trade
  - ➔ Total world trade to increase from USD 341 bn in CY 2001 to USD 655 bn by CY 2010
- Growth in domestic population, per capita incomes, consumption spend and penetration of organised retail



## Investments worth Rs. 1,40,000 Cr. were envisaged to achieve the target



All numbers in Rs. Cr.

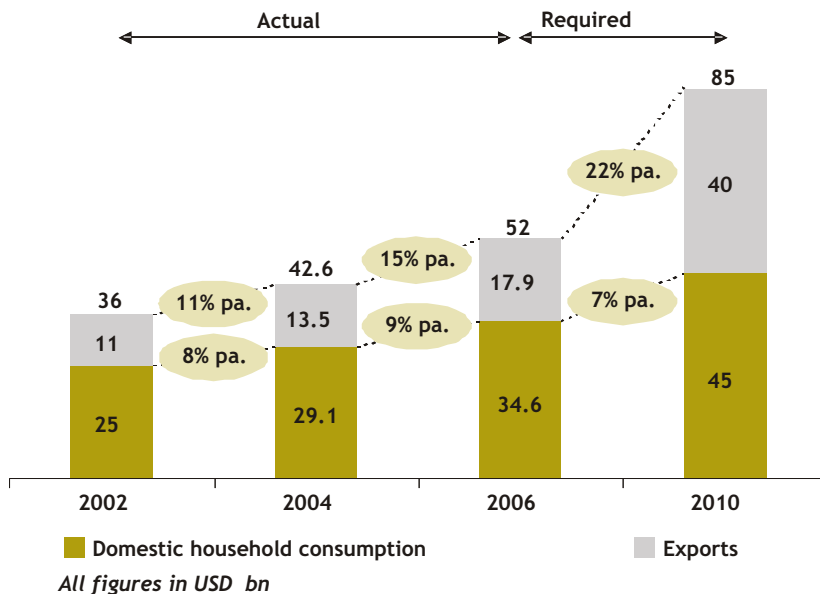
- Investments aimed up to FY 2010
- Weaving and processing, the two weak links of the industry value chain, were expected to garner chunk of the investments
- Investments aimed at
  - ➔ Downstream value addition to increase the value of industry's output, and
  - ➔ Securing raw material availability



## Section 3

# ESTIMATES OF INDUSTRY POTENTIAL

So far we are at USD 52 bn



### Note

➤ Domestic household consumption is measured as final expenditure of households on textile and clothing items at retail level

➔ Domestic market number excludes non-household consumption of textiles

➤ Export market is measured in terms of FOB value

- Overall market has grown at 10% p.a. between FY 2002-2006
- Domestic household consumption growth has been driven by -
  - ➔ 10% p.a. growth in per-capita income from Rs. 17,883 p.a. in FY 2002 to Rs. 25,788 p.a. in FY 2006
  - ➔ Increase in penetration of organised retail from under 2% in FY 2002 to around 4% in FY 2006
  - ➔ 1.8% p.a. depreciation of dollar v/s rupee over FY 2002-2006 period
- Export growth has been driven by growth in world trade from USD 341 bn in CY 2001 to an estimated USD 479 bn in CY 2005
  - ➔ Resulting in India's share in world trade rising from around 3% in FY 2002 to close to 4% currently

Source: National Household Survey, WTO, CRISIL Research, DGCIS, various surveys



## Value of production (VOP) of the industry has grown at 10% p.a. between FY 2002-2005

Particulars	Units	2002	2005
VOP of fibre segment	Rs Cr.	13,720	19,464
VOP yarn segment	Rs Cr.	37,248	47,310
VOP of spun yarn	Rs Cr.	30,154	37,591
VOP of filament yarn	Rs Cr.	7,095	9,719
VOP grey fabric segment	Rs Cr.	43,386	56,085
VOP non-apparel segment	Rs Cr.	47,563	62,820
VOP apparel segment	Rs Cr.	44,588	60,388
<b>VOP of apparel and non-apparel segment</b>	<b>Rs Cr.</b>	<b>92,151</b>	<b>123,209</b>
Exchange rate	Rs / USD	48	45
<b>VOP of apparel and non-apparel segment</b>	<b>USD bn</b>	<b>19</b>	<b>27</b>
Household consumption and export market size	USD bn	36	46

### Assumptions (Value addition norms):

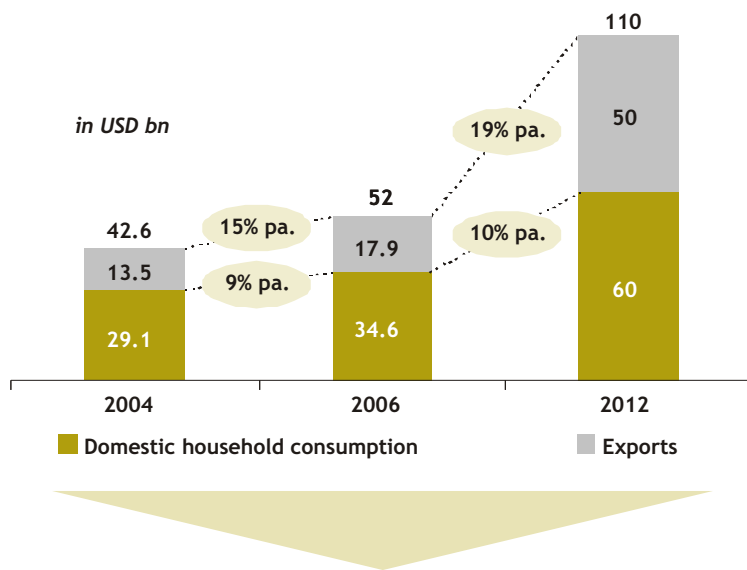
Yarn to grey fabric	40%
Grey fabric to processed fabric for apparel consumption	80%
Grey fabric to non-apparel textile items	100%
Processed fabric to apparel	110%
Retail value addition for apparel	100%

- Sum of VOP of apparel and non-apparel segment of the industry has grown at 10% p.a.
- VOP is measured in terms of wholesale (i.e ex-factory) prices of goods and included non-household consumption
- Apparel segment includes items of chapter 61 and 62, while non-apparel includes other clothing items such as textiles in piece length (sarees, dhotis, suiting, shirting, etc.), home-textiles, industrial textiles and other made-ups
- VOP of the fibre segment has been calculated based on raw cotton production (excluding non-mill use) and man-made staple fibre production

Source: CRISIL Estimates, Industry workshops



## Market size potential for the industry is USD 110 bn by FY 2012



### Note

- ↻ Domestic household consumption is measured as final expenditure of households on textile and clothing items at retail level
- Domestic market number excludes non-household consumption of textiles
- ↻ Export market is measured in terms of FOB value
- ↻ India's share in world trade has been calculated as ratio of India's exports in financial year (e.g. FY 2012) to that of world trade in the previous calendar year (e.g. CY 2011)

- ↻ Overall market size to grow at more than 13% p.a.
- ↻ Export market growth would be driven by a 5.7% p.a. growth in world trade to USD 700 bn by CY 2012 (USD 677 bn in CY 2011) from USD 479 bn in CY 2005
  - India's share to increase to around 7% by FY 2012 from current 4%
  - Share of clothing in export basket to increase to 60% from the current 48%
- ↻ Domestic market growth to be driven by favourable demographics, rising income levels and increased penetration of organised retail

Source: CRISIL Estimates, WTO and Industry workshops



## VOP of the industry to increase at 16% p.a.

### Forecasts

Particulars	Units	2005	2012	CAGR
VOP of fibre segment	Rs Cr.	19,464	43,778	12%
VOP yarn segment	Rs Cr.	47,310	108,797	13%
VOP of spun yarn	Rs Cr.	37,591	81,598	12%
VOP of filament yarn	Rs Cr.	9,719	27,199	16%
VOP grey fabric segment	Rs Cr.	56,085	130,459	13%
VOP non-apparel segment	Rs Cr.	62,820	131,508	11%
VOP apparel segment	Rs Cr.	60,388	210,096	19%
<b>VOP of apparel and non-apparel segment</b>	<b>Rs Cr.</b>	<b>123,209</b>	<b>341,604</b>	<b>16%</b>
Exchange rate	Rs / USD	45	45	
<b>VOP of apparel and non-apparel segment</b>	<b>USD bn</b>	<b>27</b>	<b>76</b>	<b>16%</b>
Household consumption and export market size	USD bn	46	110	13%
<b>Assumptions (Value addition norms):</b>				
Fibre to spun yarn		75%		
Yarn to grey fabric		40%		
Grey fabric to processed fabric for apparel consumption		80%		
Grey fabric to non-apparel textile items		100%		
Processed fabric to apparel		110%		
Retail value addition for apparel		100%		

- Sum of VOP of apparel and non-apparel segment of the industry is expected to grow at 16% p.a. between FY 2005 and FY 2012
- Apparel segment includes items of chapter 61 and 62, while non-apparel includes other clothing items such as textiles in piece length (sarees, dhotis, suiting, shirting, etc.), home-textiles, industrial textiles and other made-ups
- All calculations assume a constant Rs / USD rate of 45 over the projection period

Source: CRISIL Estimates, Industry workshops



## Strong demographic & consumption trends to drive domestic market growth

### ➤ Increasing retail penetration

- ➔ Textiles and clothing retail comprise 40% of organised retailing in India
- ➔ Share of organised retailing is expected to increase from 3.5% currently to 8% by FY 2010

### ➤ Higher disposable income levels

- ➔ Proportion of major consuming class (population with annual income > USD 2,000) has risen from 20% in FY 1996 to 28% in FY 2002; and is expected to move up to 35% by FY 2006 and to 48% by FY 2010.

### ➤ Higher level of working women

- ➔ Propensity to spend in the case of working women is higher by around 1.3 times as compared to a housewife. According to census report, population of working women has increased to 26% in FY 2001 from 22% in FY 1991. This would lead to a growth in organised retail stocking salwar-kurta-dupatta sets (SKD), western wear & accessories, sanitary napkins and diapers for children (non-wovens)

### ➤ Increase in nuclear families

- ➔ Average household size has decreased from 5.57 in 1991 to 5.36 in FY 2001. Per household consumption increases as a result of formation of nuclear families - this in turn would drive consumption and boost the retail industry

### ➤ Baby boomer effect

- ➔ The percentage of earning population (15 to 60 years) in the total population is rising. In FY 2000, the 15-60 age group boasted of 593 mn people i.e. 58.3% of the total population and over the next 15 years, the strength of 15-60 age group is expected to increase to 782 mn, a share of 62.8% in the total population.

### ➤ Higher growth & income levels in urban population

- ➔ At present, organised retailing is focused on metros and gradually expanding in Tier-2 cities. Over the next 10 years, growth in retailing is largely expected to take place in urban areas.
- ➔ Urban population in 15-60 age group is expected to grow from 164 mn (18% of total) in FY 2000 to 287 mn (23% of total) in FY 2015.

### ➤ Increased usage of credit cards

- ➔ Use of credit cards (plastic money) has increased significantly in last 3-4 years. Number of credit cards issued has grown at 26% p.a. in past 5 years while debit cards have grown by 113%. Increase in the installations of card machines will provide fillip to impulse apparel purchases



## Drivers of non-clothing domestic consumption

- Sustainable real GDP growth outlook of around 8% p.a., increasing industrial output, vibrant construction activity, rising disposable incomes and healthcare expenditure will drive demand for geo-textiles, home textiles, medical textiles - diapers & other non-wovens, packaging items, auto textiles, sports shoes, etc.
- Dwelling units to drive growth for home textiles
  - According to estimates there is a shortage of 22.4 mn dwelling units in the country and demand will only continue to rise over the next few years. 70% of this demand comes from lower and middle-income groups who are residing in Tier - II cities
  - In addition, factors highlighted before (rising consumerism and demographics), would drive demand for home textile products
- Hotels, hospitals and commercial properties to drive institutional demand for furnishing items
  - IT / ITES industry to grow at 30% p.a. over next few years, leading to creation of fresh seating infrastructure
  - Hotel room demand to grow at 10% p.a. for next 5 years. Most 3-5 star hotels are already operating at over 80% occupancy levels necessitating addition of room capacity - driving demand for high priced products
  - Explosion in construction of budget hotels to drive demand for mid-priced products
  - Healthcare delivery market to grow at 13% p.a. over next few years, creating demand for hospital infrastructure (450,000 new bed demand by FY 2010) and rising penetration of large corporates in healthcare infrastructure to boost demand for furnishing and other textile items



## Export growth drivers in place

- ➔ Economic growth, lower savings, rising inflation and uncompetitive manufacturing in developed world
- ➔ Dismantling of spinning & weaving capacities in USA, W. Europe, Japan, S. Korea, etc. & relocation to cheaper Asian conversion centres to continue
- ➔ Re-imposition of quotas on China by EU & US until CY 2007 and CY 2008 respectively (EU can potentially extend restrictions up to CY 2008)
- ➔ Increased sourcing plan of retailers owing to restrictions on China and need to diversify sourcing risk
- ➔ Existence of multi-fibre base, increased production of fibre and yarn, embroidery and design skills in India
- ➔ Better governance of Indian corporates, rising scale of select companies
- ➔ Favourable demographics, rising income and population levels, and rising retail penetration in other developing countries

### Imports from China: Restrictions by the US and the EU

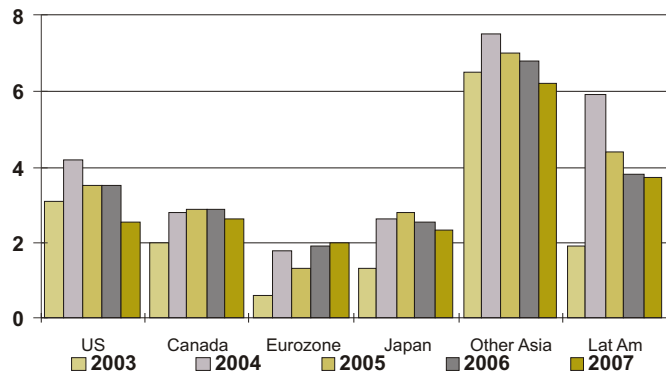
Restriction on growth rate by EU	2005	2006	2007
Pullovers	8.0	10.0	10.0
Men's trousers	8.0	10.0	10.0
Blouses	8.0	10.0	10.0
T shirts	10.0	10.0	10.0
Dresses	10.0	10.0	10.0

Note - Agreed growth rates are on April 2004 March 2005 volumes

Restriction on growth rate by the US	2006	2007	2008
Cotton knit shirts	10.0	12.5	15.0
Men's woven shirts	10.0	12.5	15.0
Sweaters	10.0	12.5	16.0
Cotton trousers	10.0	12.5	15.0
MMF knit shirts	10.0	12.5	15.0
MMF trousers	10.0	12.5	15.0

Note - Agreed growth rates are on the volumes in 2005

### Steady world growth (%)



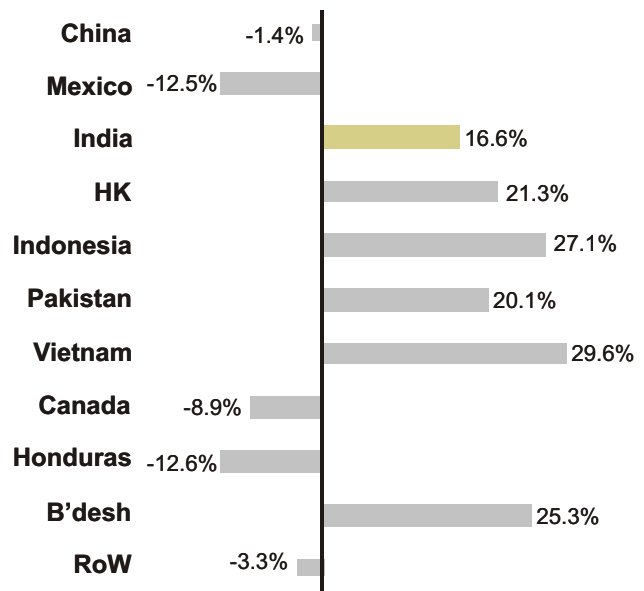
Source: Global Insight and S&P



## Resulting in growth of exports

- ➔ Between FY 2002 and FY 2006, India's exports have grown at 13.4% p.a.
- ➔ Post quota phase-out, growth accelerated to 25% in FY 2006 over FY 2005
- ➔ Increase in share of US imports in CY 2005 to 5% from 4% in CY 2004 - growing at 27% yoy compared to a 7% growth in total US imports
- ➔ Increase in share of extra-EU imports in CY 2005 to 7% from 6% in CY 2004 - growing at 18% yoy compared to a 5.6% growth in extra-EU imports
- ➔ 3rd largest supplier to US & extra-EU trade in CY 2005
- ➔ During FY 2006, India's total apparel exports were USD 8.63 bn, a yoy increase of 31%
- ➔ India enjoys a higher realization in US market for apparel of USD 3.9 / sq. mtr compared to USD 2.8 / sq. mtrs for China - our realisations have increased in past two years compared to a decline for China
  - ➔ China has focused on driving volume and thereby value growth rather than focusing on per-unit realisations

% YoY value growth in US imports between Jan-Jun 2006 and Jan-Jun 2005



Restrictions on China have resulted in increased growth in other Asian supplies

Source: OTEXA, DGCI&S



## However, India's share in many billion dollar categories in US was significantly lower than China

Share in certain billion dollar categories (those that had an import value of > 1 USD bn in USA in CY 2005)

Categories with low share	India's share	China's share
Cotton W/G, trouser, slacks, shorts	2.1%	10.0%
Cotton M/B trouser	2.6%	7.2%
MMF Knit shirts / blouse,W	1.3%	15.6%
MMF Trousers	2.4%	13.3%
MMF Slacks	0.9%	11.3%
MMF Bras/other body support garm.	2.8%	28.1%
MMF Coats, W/G	1.9%	40.6%
MMF Knit Shirts	1.3%	5.1%
Other MMF coats	1.0%	37.6%
S/V trousers / breeches / shorts, M	1.0%	88.9%
Other MMF furnishing	3.4%	68.4%
Baby garments / clothing access.	3.2%	59.5%

- Meagre presence in these categories is a potential risk to achieving 19% p.a. growth in exports and increasing apparel's share in export basket to 60%

Categories with high share	India's share	China's share
Cotton sheets	19.2%	22.9%
Cotton pile towels	20.8%	16.0%
M/B Cotton shirts, not knit	10.8%	7.2%
Cotton W/G not knit shirt / blouse	23.8%	20.0%
Cotton skirts	24.7%	24.9%

- On overall basis, India's share in MMF apparel and non-apparel imports of US was ~ 2.3% and 1.8% respectively in CY 2005, compared to 5.6% and 14.2% in cotton apparel & non-apparel items respectively.
- There is an urgent need to build capacities in segments where India's share is poor - commensurate attention is

required in processing segment to enable growth in made-ups and apparel

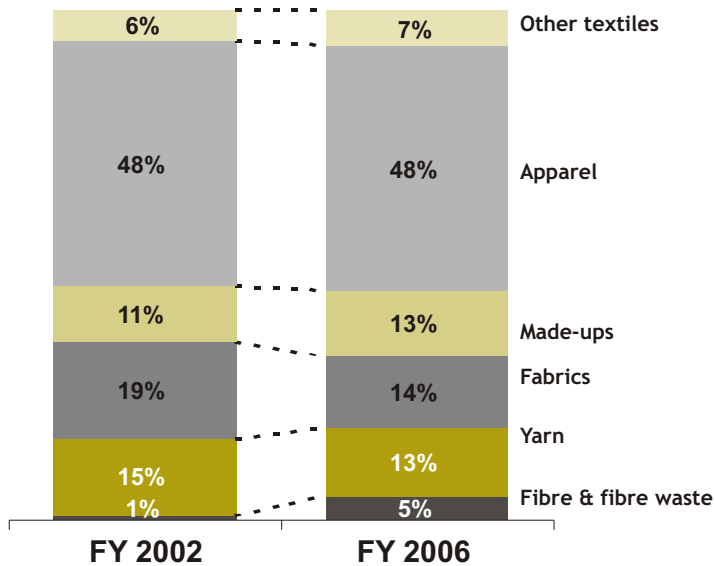
- In some of these categories, China is facing restrictions (e.g. cotton trouser, MMF knit shirts and trousers, etc.) - opportunity for India



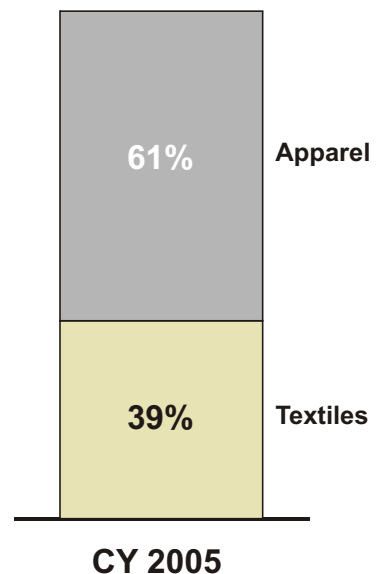
## Export basket - skewed in favour of textiles

Against the target of 60% value share of apparel  
in exports by FY 2010...

less than 50% of our exports is apparel



against China's 61 %



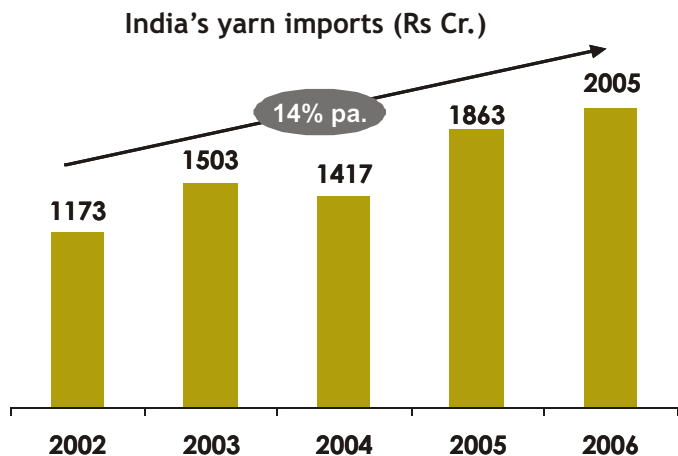
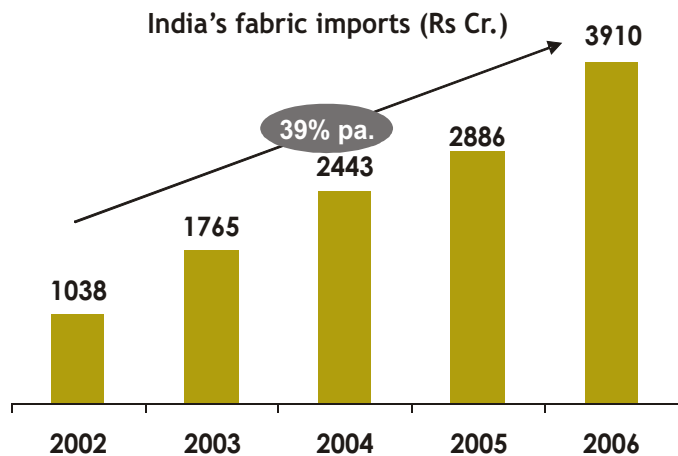
- ➔ Increasing the share of apparel in our export basket to 60% by FY 2012 would call for enhancement of garmenting capacity with special emphasis in categories where our market share is low
- ➔ This would also call for strengthening of our fabric making and processing base

Source: DGCIS and UN Stats' Comtrade database



## Industry's import dependence has been increasing

- Fabric imports (in value terms) comprised around 33% of all imports in FY 2006, an increase from 14% in FY 2002
- Rise in garment production (especially exports) has resulted in increased fabric imports to meet buyer specifications
- Woven cotton & MMF fabrics and knitted fabric comprise around 60% of fabric imports
- Silk & woolen fabric comprise additional 25%
- Rising fabric imports owing to
  - ➔ Fragmentation in domestic weaving and processing facilities and use of outdated technologies, thereby impacting their ability to meet the delivery schedules and quality specifications set by the garmenting units
  - ➔ International buyer also nominates the mill from where fabric is to be purchased



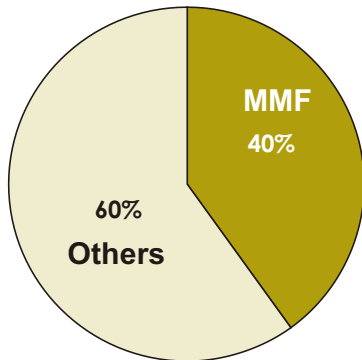
**Increasing import dependence points to the urgent need to invest in fabric and processing capacities**

Source: DGCI&S, Office of the Textile Commissioner

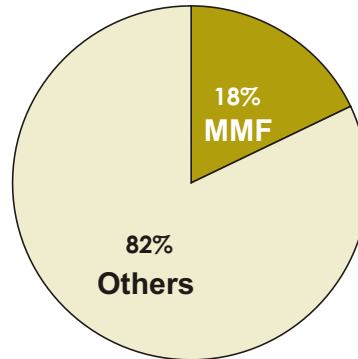


## India has lagged behind in MMF

World trade mix in CY 2005



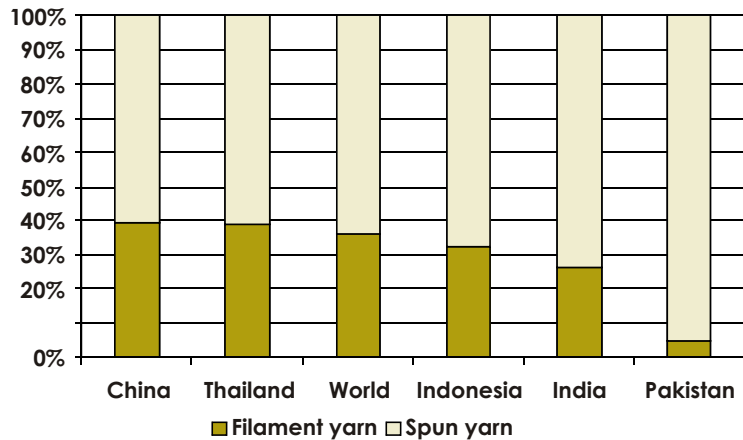
India's trade mix in FY 2006



Source: UN Stats' Comtrade database, DGCI&S

- If share of MMF items in India's export basket increases to global average by FY 2012, MMF items' exports alone would be around USD 20 bn (40% of USD 50 bn)
- The adjoining chart also points to lower share of filament yarn in total yarn production compared to world average

% mix of spun yarn and filament yarn



There is hence a need to promote man-made fibre and filament yarn in the country through appropriate policy initiatives

Source: Saurer, The Fiber Year 2005/06



## Achieving the vision targets would call for more than doubling existing production base

Particular	Units	FY 2006	FY 2012
Yarn production	bn kg	4.6	9.4
Spun yarn	bn kg	3.4	6.6
Filament yarn	bn kg	1.2	2.8
Fabric production	bn sq mtrs	49.0	97.3
Garments production	bn pieces	10.0	22.1
Cotton fibre	lakh bales	244	450
Man -made fibre	mn tonne	0.97	1.9

Source: CRISIL Estimates, Industry workshops

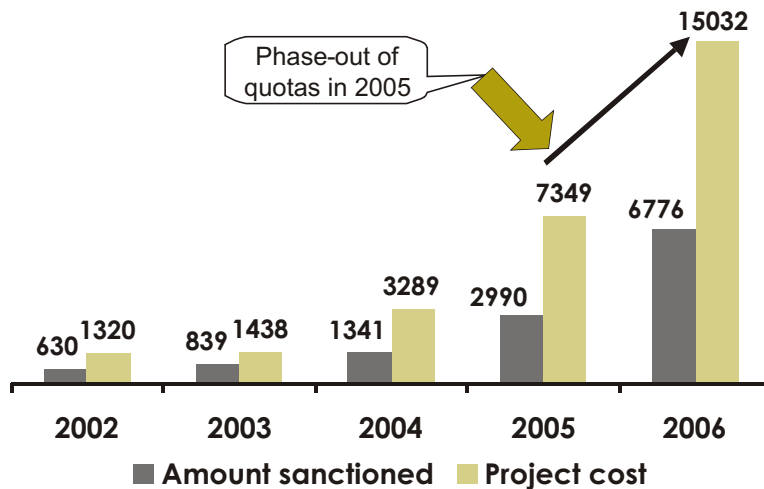
- ➡ Cotton fibre consumption and man-made fibre production numbers have been estimated assuming the current fibre mix is maintained
- ➡ Mix between spun yarn and filament yarn is estimated assuming that the share of filament yarn increases to 30% of total yarn production in FY 2012 (estimated based on current trend in share of filament yarn)
- ➡ Yarn and fabric export as a % of production in FY 2012 is expected to remain close to current levels of 18% (marginally lower than current share of 19% on account of higher domestic demand) and 3.7% respectively
- ➡ Cotton fibre numbers include production meant for non-mill consumption. Raw cotton exports have been assumed to grow at 5% p.a. assuming higher domestic consumption.



## Section 4

# INVESTMENTS AND GROWTH

Investments have lagged expectations, but picked up in past two years



Source: Office of the Textile Commissioner

Against requirement of Rs. 1,40,000 Cr. cumulative investment (sanctioned project cost) under TUFs between FY 2003-2006 is only Rs. 27,108 Cr.

- Investment growth has lagged owing to -
- Many units had deferred their investment plan until 2005 in order to fully appreciate the benefits of quota phase out
- Delayed introduction of CLCS scheme for power loom & processing industry
- Non-eligibility of second-hand machine beyond specified vintage
- Inability of some units to access funds under TUFs owing to restrictions such as 3 year profitability track record (except in specified cases)
- Long waiting period for looms and spindles
- Delays in disbursement of interest reimbursement, creating working capital problems for firms
- Lack of flexibility in labour laws
- Stringent environmental norms for processing
- Promoters of independent units in the unorganised sector, have limited ability in formulating business plans, maintaining proper accounts & documentation, and approaching lenders and fulfilling their requirements for availing loan
- ➔ Further the awareness level about TUFs amongst them has only gradually increased



## Investments have lagged expectations, but picked up in past two years (contd.)

- Based on analysis of machinery production, import and exports it is estimated that total investment in the textile and clothing industry between FY 2003-2006 (TUFs and non-TUFs) was around Rs 42,978 Cr.
- An analysis of financials of around 300 odd firms reveals that they alone have cumulatively spent around Rs 11,000 Cr. between FY 2003-2005
- Many firms in the past two years have also been growing through international acquisitions, alliances and joint ventures. E.g. -
  - ➔ Merger of denim business of Raymond with UCO, Belgium
  - ➔ Acquisition of a Tashkent-To'yetpa Tekftil Ltd in Uzbekistan by Spentex Industries
  - ➔ Acquisition of US based home-textiles company Dan River by GHCL
  - ➔ JV between Carreman Michel Thierry, France and Banswara Syntex Ltd.



## Acceleration in investment witnessed in past two years is owing to...

- Acceleration in GDP growth thereby driving domestic consumption
- Abolition of quotas in developed countries from 1st January, 2005

### Number of policy initiatives such as -

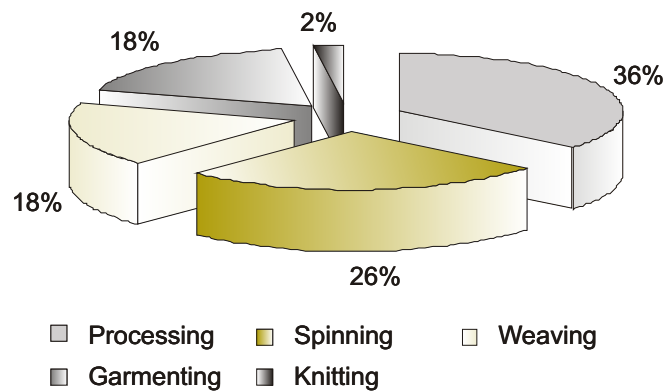
- Scheme for integrated textile parks (SITP)
  - ➔ Proposes to set-up 25 textile parks by FY 2007 (number of them already under progress)
- Introduction of credit linked capital subsidy scheme for the powerloom sector (20% CLCS in lieu of 5% interest reimbursement) and specified processing machinery (10% CLCS + 5% interest reimbursement)
- Introduction of optional CENVAT chain (except for man-made fibre and filament yarn)
- Reduction in excise duty on man-made fibre and filament yarn to 8% from 16%
- De-reservation of knitting sector in the FY 2006 budget
- Setting up of an FDI cell within the Ministry of Textiles to provide assistance to foreign firms planning entry into India
- Setting up of an inter-ministerial committee (comprising officials from the ministries of road and transport, defence, home affairs, health and family welfare and environment) to look into the feasibility of regulating the use of technical textiles
- Setting up of sub-group comprising Commerce Minister, Textile Minister, Labour Minister, State Chief Ministers and trade unions to address the issue of introducing flexible labour laws

There is a need to sustain this investment momentum



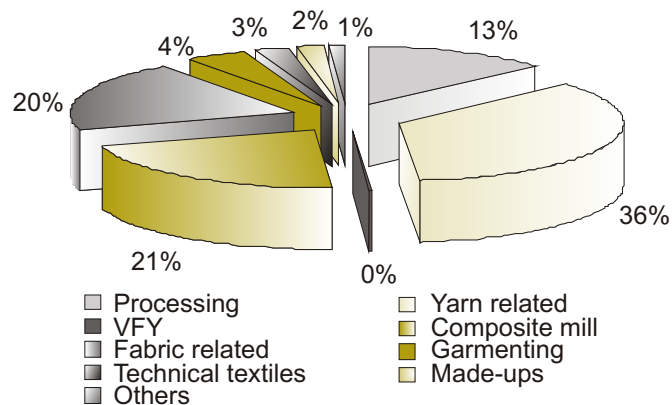
## Investment under TUFs divergent from requirements

% break-up of Rs. 1,40,000 Cr. worth of investment envisaged for sector in earlier Vision document



**Downstream investments critical to achievement of vision targets**

% break-up of Rs. 31,800 Cr. worth of project cost sanctioned under TUFs between 01 April 2003 - 30 June 2006



**Note:** Yarn related industries include Spinning, texturising industries. Fabric related industries include weaving, knitting, preparatory and embroidery segments. Technical textiles segment includes non-wovens

Source: Office of the Textile Commissioner



## Production growth has been moderate, employment has increased

Capacity installed	Unit	2002	2005	2006	CAGR
Operational Spindles	million no.	31.0	29.9	29.8	-1.0%
Total looms (organised + decentralised sector)	lakh no.	18.1	20.1	20.3	2.9%
Man-made fibres	million kg.	1,090.0	1,189.0	1,191.2	2.2%
Man-made filaments	million kg.	1,135.0	1,337.0	1,374.4	4.9%

- Total number of shuttle-less looms as on 31st July 2006 was 16,463 in mill sector and 32,000 in the decentralised sector (installed largely in the last 5-6 years)

Production	Unit	2002	2005	2006	CAGR
<b>Production of fibres</b>					
Raw cotton	lakh bales	158.0	243.0	244.0	11.5%
Man-made fibres	million kg.	834.0	1,023.0	966.5	3.8%
Raw wool	million kg.	49.1	50.0	NA	
Raw silk	million kg.	17.4	16.5	17.5	0.2%
<b>Production of yarn</b>					
Cotton yarn	million kg.	2,212.0	2,272.0	2,461.4	2.7%
Other spun yarn	million kg.	889.0	951.0	925.1	1.0%
Man-made filament yarn	million kg.	962.0	1,109.0	1,179.3	5.2%
<b>Production of fabric</b>					
Cotton	million sq. m.	19,769.0	20,655.0	23,558.0	4.5%
Blended	million sq. m.	6,287.0	6,032.0	6,184.0	-0.4%
100% non-cotton	million sq. m.	15,978.0	18,691.0	19,265.0	4.8%

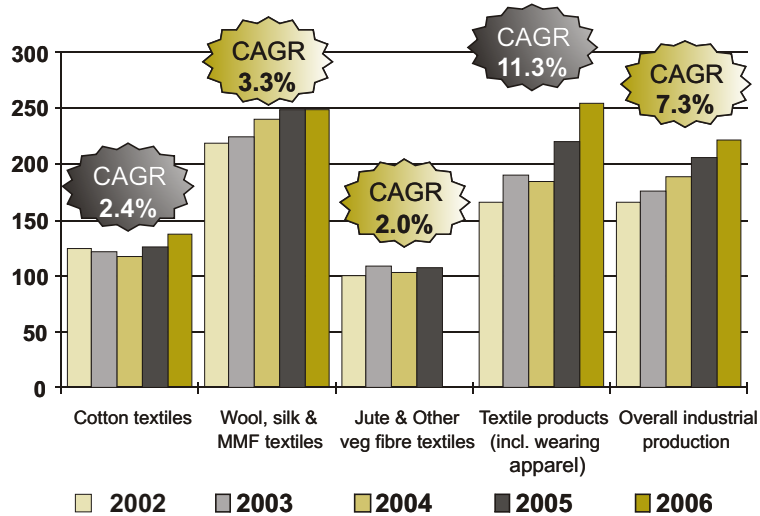
Source: Office of the Textile Commissioner

- Non-handloom, direct employment in the industry has gone up by 4 million - from 22.4 mn in FY 2001 (census numbers) to around 26.6 mn in FY 2006 (source: Office of Textile Commissioner)
- Around 2 mn jobs have been created in the ready made garment (including knitwear) sector alone



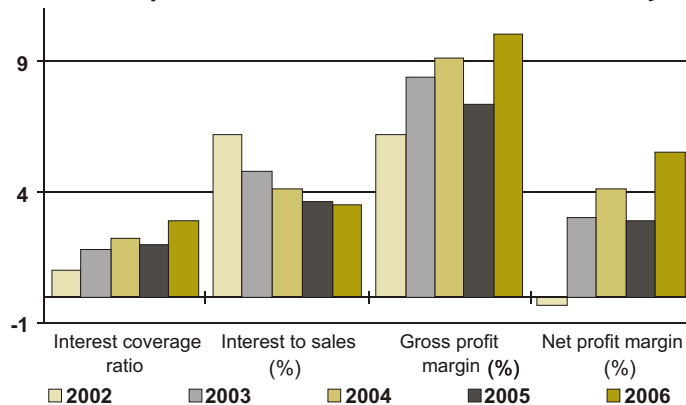
## Investments under TUFs are yielding growth

Index of Industrial production (base 1993-94 = 100)



Source: MOSPI

### Financial performance of the Textile industry



Source: RBI Report on Performance of Private Corporate Business Sector

- Industry has shown a turnaround in the last one year
- Number of other policy initiatives such as excise duty rationalisation have also contributed positively to the financial performance of the industry
- Investment effects visible with a lag owing to construction and stabilisation period of two years
- Yarn production has increased without significant increase in operational spindlease, indicating that funds under TUFs have been utilised for **modernisation** and **increasing productivity**



## Industry needs to invest Rs 1,94,000 Cr during FY 2007 - 2012

➤ Increased investment in spinning would ensure adequate availability of yarn for domestic consumption, apart from meeting the requirements of export market, as well as enable domestic value addition on cotton, exports of which are increasing

➤ Investments in downstream segment are required to remove the extent of current fragmentation, build scale and ensure value addition as well as reduce rising import dependence on processed fabric

➤ Increase in investment numbers compared to previous study is largely owing to decline in availability of second hand machines, leading to higher investment in new machines

➤ To meet investment needs, following are the various options available to the industry -

➤ Equity financing

➔ Internal accruals, including reduction in net working capital from ~30% of net sales currently

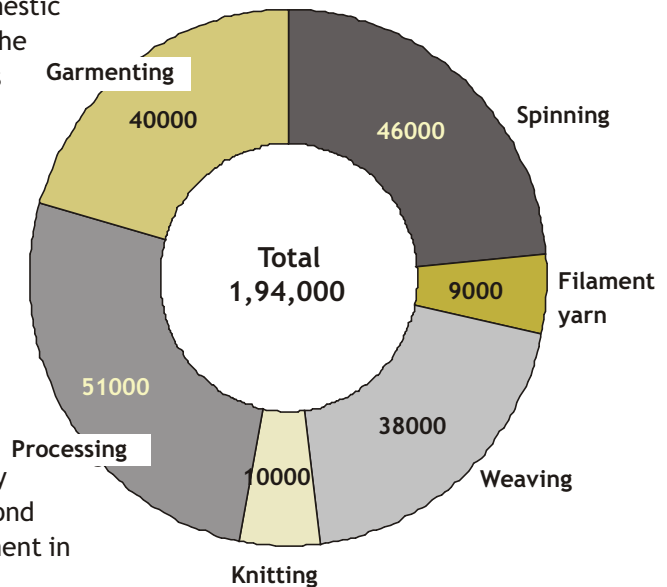
➔ FDI - so far a neglected source of finance (industry has received ~ USD 450 mn of FDI, since 1991)

➔ Preference shares, IPO / FPO, Qualified Institutional Placement, GDR / ADR

➤ Debt / quasi equity financing

➔ Bank / FI loans, FCCB's / ECB's, Bonds, Multi-lateral funding (IFC)

All numbers in Rs. Cr.



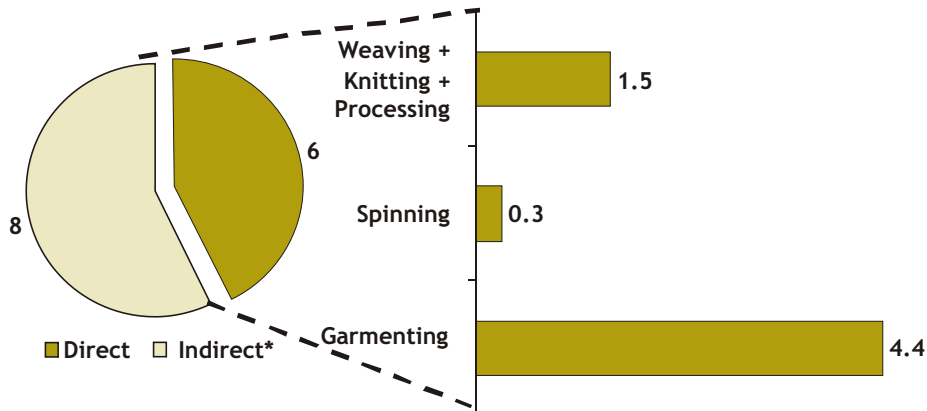
Period FY 2007-12 (estimates)	Rs Cr.
Investment required	194,000
Equity financing (30%)	58,200
Debt financing (70%)	135,800

Source: CRISIL Estimates, Industry workshops



## Investment would lead to creation of around 14 million jobs during FY 2007-2012

Employment generation in textile & clothing industry during FY 2007-12 (in mn)



Source: CRISIL Estimates, Industry workshops

Segment	Number of machines required	Person required per machine
Spinning	20 mn spindles (fresh capacity)	350 persons per 25,000 spindles
Weaving	134,600 (shuttle-less looms) + 201,600 (other looms)	2 persons per shuttle-less loom and 4 persons per other loom
Knitting	36,500	398 persons per 100 machines
Processing	468 process houses with 100,000 mtrs / day capacity	500 persons per process house with 100,000 mtrs / day capacity
Garmenting	2.7 mn	Appx. 1.7 persons per machine

- Thus multifold employment opportunities exist for people of various classes and skill sets - skilled, semi-skilled, unskilled, women, people from backward classes, etc. - thereby underscoring the long term benefits to the economy the sector offers and hence the need to sustain investment momentum in textiles and clothing

\*Indirect employment includes employment in allied sectors like cotton and jute agriculture.



## TUFS needs to be made co-terminus with XIth plan

- Industry needs an investment of Rs 1,94,000 Cr. during the period FY 2007 - 2012 to achieve the Vision targets and create additional employment for 14 mn people by FY 2012
- This spells an opportunity to provide gainful employment to semi-skilled, unskilled, weaker and female sections of the society
- There is a need for a vibrant spinning industry to ensure yarn availability and domestic value addition on cotton
- Industry depends heavily on expensive imported machinery (over 70% of demand) and incentive under TUFS is essential to offset the cost
- Declining availability of second hand machines is pushing up investment requirement for an equivalent capacity, thereby making it difficult for small entrepreneurs to scale-up
- Fragmentation in fabric, processing, garmenting and made-ups industry - need to provide incentive to small entrepreneurs to scale-up and integrate
- Need for enhancing capacities in the technical textiles segment
- The scheme has taken-off only recently owing to change in Government policies and quota dismantling, as discussed earlier - as a result, the structural changes envisaged in the National Textile Policy 2000 and N. K. Singh committee report such as technology migration and increased scale in decentralised sector are yet to be achieved.
- The industry has witnessed an increase in production despite modest rise in capacities, thereby indicating rising modernisation and growing productivity
- By FY 2012 many FTA's are expected to be functional and domestic industry would need to have acquired competitiveness and scale by then to compete on an equal footing with imports



## Section 5

# GROWTH AGENDA

## Agenda for the Government

The following are the broad areas that require support from Government (in collaboration with the industry) in order to enable the sector to become competitive globally and aid in achieving the Vision targets -

- Facilitating capital investment through -
  - ➔ Extension of TUFs in its present format until FY 2012
  - ➔ Reducing the cost of machinery acquisition
  - ➔ Accelerating investments in the processing segment
  - ➔ Strengthening the domestic textile machinery manufacturing base
  - ➔ Continuation of the SITP beyond 25 parks
  - ➔ Attracting FDI into the sector
- Introducing measures for labour flexibility
- Addressing infrastructural constraints and transaction costs - focusing on reducing the cost of doing business in the country
- Ensuring adequate availability of fibre for domestic consumption
- Facilitating manpower training
- Framing regulations for the use of technical textiles
- These measures have been discussed in the following pages.

*The role of the Government in ensuring the implementation of above measures assumes significance not only because of the size of market opportunity, but also in the light of the Free Trade Agreements (FTAs) that are on the anvil with other textile producing Asian countries. Above measures would provide the industry with a level playing field with other competing countries and enable them to take on the threat of imports.*



## Facilitating capital investments

### Technology Upgradation Fund Scheme (TUFS)

- As discussed earlier, TUFS needs to be made co-terminus with XIth Plan in its present format
- Ensuring prompt disbursement of interest compensation under TUFS to prevent working capital problems

### Reducing the cost of machinery acquisition

- The industry needs around 29 mn spindles (including 8.9 mn spindles for modernisation) during the FY 2007 - 2012 period, translating into demand of almost 5 mn spindles p.a. - against this, the existing domestic spindle manufacturing capacity is only 2.1 mn p.a. estimated to increase to ~ 3.5 mn p.a. in the near future.
- Further, the supply of second hand spindleage in the market has also declined, thereby limiting the extent of second hand spindleage that can be acquired to not more than 15% of total requirement for fresh capacities
- As a result, the industry has to perform expensive import of spindleage. The industry's experience with relatively cheap Chinese machinery has been below expectation, resulting in increased reliance on European machinery.
  - ➔ In order to boost investments in this critical segment of the industry, the Government needs to permit import of spinning machinery of 5-7 years vintage with 10 years residual life under TUFS
  - ➔ Without adequate investments, weavers would have to increase their reliance on imported yarn
- Government needs to consider reduction in excise duty on machinery and spares to 8% from current 16% as well as reduction in customs duty, on all new machinery, to a uniform 0% from current 10% (until the domestic industry is able to meet demand), given the limited domestic manufacturing capacity and large investment needs.

### Boosting investments in processing segment

- Processing industry, owing to stringent environmental norms, has seen lower than expected investments in the past. Over FY 2007 - 2012, investment to the tune of Rs 51,000 Cr. is required in this segment - this investment is critical to boost exports of made-ups and apparel and reduce the dependence of the industry on imported fabric
- To facilitate investment in processing, there is a need to enable single window clearance of units, designating areas for setting up such units and land-fill areas
- As an alternative to existing technology with reverse osmosis and zero discharge, the Government may consider encouraging coastal processing parks with marine outfall. Coastal parks would also be able to use desalinated water (water availability being a critical decision making criteria).



## Facilitating capital investments (contd.)

### Strengthening the domestic textile machinery manufacturing base

- ➔ Need to bring textile machinery sector under the Ministry of Textiles to enable focus and alignment with objectives of the textile industry.
- ➔ India imports over 70% of its machinery requirement, as domestic capacity and technology is inadequate to meet industry's requirements. Poor historical returns in the sector have resulted in the machinery industry lagging in research and development spend and capacity expansion. As observed earlier, domestic spinning machinery capacity is inadequate to meet the industry's needs. Likewise, the domestic shuttle-less loom manufacturing capacity is only 5,000 looms p.a. compared to a requirement of ~ 22,500 looms p.a. during FY 2007-2012
- ➔ Given the massive investment needs of the industry, and also in the absence of textile machinery manufacturing base (except spinning which is also meeting only part of requirement), it is essential to encourage FDIs / JV projects to create machinery manufacturing facilities in India like in China. As part of these efforts, special emphasis should be laid on garment machinery industry, which is virtually non-existent in the country.
- ➔ Developing a vibrant textile machinery manufacturing base in India is critical as indigenously manufactured goods would help lower the capital cost for textile & clothing manufacturers, shorten lead times for equipment delivery, lower the cost of repairs & maintenance through indigenisation and help develop products that meet the requirements of Indian companies. These companies could also serve as manufacturing hubs to cater to their global requirements, especially in South and S.E. Asia, resulting in foreign exchange earnings for the country

### Scheme for Integrated Textile Park (SITP)

- ➔ SITP scheme needs to be extended in its present format to cover parks beyond the stated 25 and made co-terminus with the XIth Plan to enable units to benefit from common infrastructure facilities
- ➔ In order to boost investments in these parks, as well as to enable units in these parks to become competitive, labour law flexibility should be introduced on a priority basis

### Attracting Foreign Direct Investment (FDI) in textiles and clothing

- ➔ Ministry of Textiles needs to engage in selective textiles diplomacy in order to secure investments - promote FDI (textile industry has poor FDI profile), convince overseas companies / buyers to forge alliances with Indian companies, invest in fresh capacities and consortium formation



## Stringent labour laws are affecting investments

### Seasonality of Exports

Export business being dependent upon orders, seasonal and contractual in nature, excess labour during lean order periods or during initial stages of developing an export market(s), when order uncertainty is high, can lead to financial difficulties - necessitating need for flexibility in contract labour laws

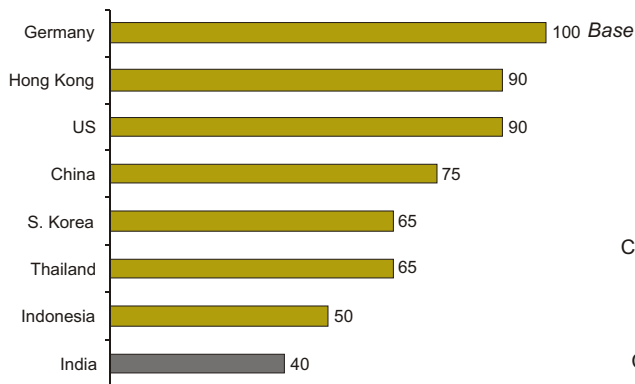
### Prohibition of Contract Labour

Section 10 of the Contract Labour (Regulation and Abolition) Act, 1970 envisages prohibition of contract labour in work / process / operation if the conditions set therein like perennial / essential nature of job etc. are fulfilled. It enables contract labour engaged in prohibited jobs to become direct employees of the principal employer

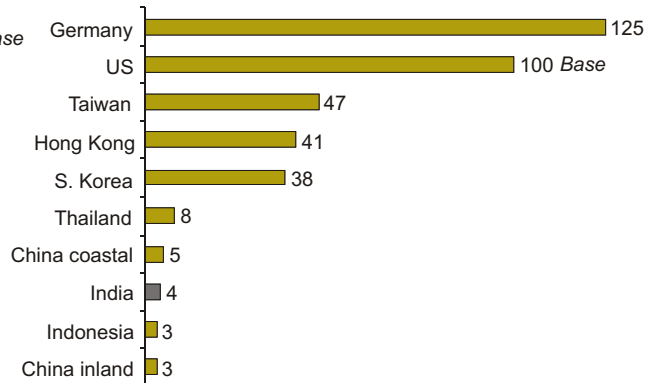
### Restrictions on Lay-offs

Units employing over 100 people currently fall under the purview of Industrial Disputes Act. The Act stipulates that employers must obtain necessary approvals to effect lay-offs. This proves to be a hindrance especially for small and medium enterprises.

Index of labour productivity



Index of labour cost



Source: CRISIL Estimates, Industry and Werner International



## Government needs to enable labour flexibility

### Extension of working hours

- The Government needs to consider the demand of labour intensive sections of the textile industry such as made-ups and garmenting to amend the Factories Act, 1948 to permit increase in the weekly working hours limit from 48 to 60 hours and the daily working hours limit from 8 to 12 hours, subject to adequate compensation, in order to cater to peak season requirements of customers as well as to compensate for lower labour productivity
- A Bill was introduced on 5th August 2005 in the Parliament, substituting Section 66 of the Factories Act, 1948 to permit women workers to work in the night shift between 10 pm and 6 am in units that guarantee adequate safety and provision of transportation from workplace to home. The Government needs to consider passing of the Bill thereby removing the restriction of women employment during the night shifts

### Allow Adjustments in Workforce

- Need for relaxing the norms of the Industrial Disputes Act Chapter V(B) by keeping units employing up to 1,000 people (presently 100) outside its purview.
  - E.g. - Malaysia regards the right to hire, assign work, reward, transfer, promote, adjust work-force as managerial rights
- Allow workforce adjustment (ILO Convention on Termination of Employment) at the instance of employer due to structural and other changes
- Amend the Industrial Employment Act to facilitate job transfers intra-enterprise or inter-enterprise, fixed term employment

### Employees' State Insurance Scheme

- Consider providing exemption to units from adopting the Scheme whenever the employers and employees make a request to exempt from the provisions of the ESI Act at a time when the organisation is providing better insurance and medical facilities.



## Government needs to enable labour flexibility (contd.)

### Permit Contract Labour

- Amend Section 10 of the Contract Labour (Regulation and Abolition) Act, 1970. It should exclude textile units from the purview of the Act, provided the units so exempted provide the contract labourers employment for a fixed tenure of 150 days, as well as protection of the rights of these labourers in terms of their health, safety, welfare, social security, etc.
- ➔ E.g. China, Bangladesh and Sri Lanka have allowed contract labour in the textiles sector

### Legal Compliance

- For units complying with international labour norms through SA 8000, ISO 9001-2000, ISO 18000 or any other international certification, the industrial units may be exempted from inspection by the Government Departments

### Special Focus on SEZs / SITPs

- With the passing of the SEZ Act, 2005 respective State Governments may delegate the power of the Labour Commissioner to the Development Commissioner (DC) of SEZ.
- States with large textile manufacturing clusters should adopt flexible labour policies to compete with their counter parts in Chinese SEZs
  - ➔ E.g.: States like Andhra Pradesh have delegated power to DC as well as introduced flexibility in contract labour appointment in addition to granting public utility status to EOUs / units in EPZs
- Likewise, labour law flexibility should be introduced on a priority basis in the designated Integrated Textile Parks

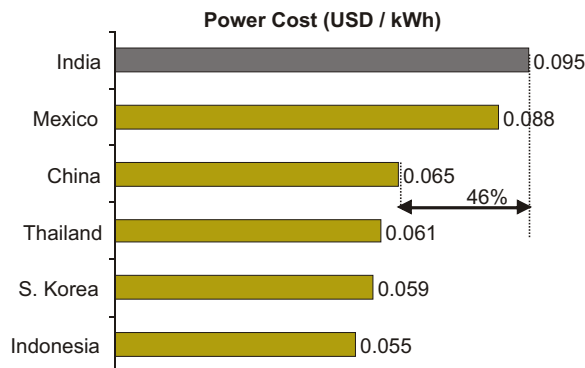
Increased labour flexibility would enable companies to drive productivity and become competitive. It would also help to attract more investments into the sector and help build scale in garmenting segment



## Address infrastructural constraints & transaction costs

- Power is a critical input for the textile industry
  - ➔ ~ 11-15% of operating cost for spinning units and weaving units
- Erratic power supplies and outages lead to production disruption, wastages and deterioration in quality of output.
- Industry has invested in captive power plants - 9% of captive power capacity in India
- States should expedite power sector reforms and liberalise norms for open access to enable the industry to buy directly from generators - would enable the industry to access power at internationally competitive rates of ~ 6 cents / kwh
- Customs delays and longer turnaround times render Indian exports uncompetitive compared to other low cost countries such as China
- JNPT port which handles bulk of textile shipments from India had a turnaround time of 1.98 days during April - December 2005 period
- According to the World Bank Report on Doing Business for CY 2006, India is Ranked 139th on the parameter of Trading Across Borders compared to China's 38 - a reflection of cost disadvantage for Indian players in international trade.

The table below summarises the key findings of the World Bank study -



Nature of Export Procedures (2006)	Duration (days)		Cost (USD)	
	India	China	India	China
Documents preparation	11	14	340	120
Inland transportation and handling	6	2	404	80
Customs clearance and technical	4	1	45	60
Ports and terminal handling	6	1	75	75
<b>Total</b>	<b>27</b>	<b>18</b>	<b>864</b>	<b>335</b>

Source: Various publications, CRISIL Database and World Bank



## Address infrastructural constraints & transaction costs (contd.)

- One of the key cost elements in international trade, transaction cost, according to industry estimates amounts to an average of 3% of FOB value of goods exported. For an industry that is operating on low margins (GPM of 10%), transaction costs seriously affect competitiveness. Reasons for high transaction cost are -
  - ➔ Cost of funds due to delay in receipt of duty reimbursement
  - ➔ Port clearance and handling charges
  - ➔ Detention / demurrage charges on account of custom delays, and
  - ➔ Textile cess
- Following measures need to be adopted on an urgent basis to improve ease of trade -
  - ➔ Need for installing modern handling equipment at all major ports
  - ➔ Increased dredging to accommodate larger vessels
  - ➔ Increasing port capacity to avoid congestion
  - ➔ Improving rail evacuation infrastructure
  - ➔ Improving road and rail connectivity to ports
  - ➔ Bringing ports under Essential Services Act to prevent strikes and delays
  - ➔ Simplification of trade procedures through reduced export and import documentation
  - ➔ Greater use of Information technology
- Further, according to industry estimates, owing to poor road infrastructure and multiple check points, the cost of domestic transportation (by road) is higher than international shipments on several occasions
  - ➔ E.g. Transporting a truck load from Tuticorin to New Delhi can cost 3.5 cents per tonne per km compared to 1.9 cents per tonne per km for a shipment from Tuticorin to Hamburg



## Ensuring adequate raw material availability

- Ensuring adequate availability of cotton (450 lakh bales required in FY 2012) would require increase in yield of cotton crop through measures such as increased coverage of area under irrigation (to prevent delays in sowing), improved seed quality and better farm management practices to prevent infestation
  - ➔ An increase in yield from current 468 kg / ha to world average of 723 kg / ha would alone increase cotton production to 377 lakh bales on current acreage
- The domestic demand for ELS cotton in FY 2006 was estimated to be 9 lakh bales compared to domestic production of 2.6 lakh bales. Demand for ELS cotton is only expected to increase in future owing to India's dominant position in trade of fine and superfine count yarn. It is estimated that by FY 2012, requirement of ELS cotton would touch 16.8 lakh bales. There is hence a need to ensure adequate availability of ELS cotton at competitive rates and at quality levels comparable to Egyptian Giza and American Pima.
- Measures for ensuring adequate domestic production of ELS cotton include ensuring adequate supply of quality seeds of ELS hybrid cotton, knowledge dissemination to farmers on seed technology and productivity improvement techniques (increased ELS cultivation would boost farm incomes), and joint efforts of industry, research bodies & Government in R&D and promotion activities through dedicated cell
- Government may consider exempting ELS cotton (>32 mm staple length) from customs duty and special additional duty (SAD) of 4% until domestic production is able to meet demand given the fact that the country has dedicated spindleage for ELS cotton
- Ensuring availability of short - medium staple cotton (up to 27 mm) given increased usage of Bt Cotton which yields cotton crop of 29-33 mm staple length. Though there is a need for increased usage of Bt Cotton to ensure rise in yields, it is equally important to ensure domestic availability of short-medium staple cotton, else it would lead to a situation where in short-medium staple cotton is imported and surplus resulting from Bt Cotton exported.



## Ensuring adequate raw material availability (contd.)

- ➔ As discussed earlier, India's share in trade of MMF based products has been lower than world average
- ➔ Imports of MMF apparel and non-apparel products in the US were USD 20.7 bn and USD 11.1 bn respectively in CY 2005. Of this, India's share in MMF apparel and non-apparel was ~ 2.3% and 1.8% respectively in CY 2005, compared to 5.6% and 14.2% in cotton apparel & non-apparel items respectively. In contrast, China had a US import share of 27% and 41% in MMF apparel and non-apparel categories.
- ➔ Despite being the 4th largest producer of man-made fibre and filament yarn in the world, the poor share of India's exports in MMF items is worrisome. Even countries like Bangladesh (rank 8) and Sri Lanka (rank 12) appear to be doing better than us (rank 16) in US MMF apparel imports in 2005!
- ➔ One of the principal reasons for this has been the higher excise and customs duties on MMF and their high prices. In order to meet the fibre requirements of the country and to achieve a sizeable share of trade in MMF products, the Government should ensure adequate domestic availability of man-made fibres and filament yarn (which is a capital intensive sector and whose prices depend upon crude oil prices) by reducing customs duty to zero and maintaining fibre neutral excise policies and ensuring that MMF is available at internationally competitive prices

## Other initiatives to ensure growth

- ➔ Abolition of antiquated laws such as hank yarn packing obligation and Textile Committee cess
- ➔ Textiles Committee / Office of Textiles Commissioner should introduce retail audits to enable data capture of sales of textile and clothing items on a periodic basis (monthly / quarterly)



## Need for focus on manpower training

### Issues faced by the Industry

- Labour is not skilled in shop floor practices
- Existing textile research associations, ATDCs, powerloom service centres and institutes are lacking in terms of capacity and awareness on modern industrial requirements
- Low labour productivity
- High rate of attrition of trained / experienced manpower
  - ➔ New companies
  - ➔ Jobs abroad
- Loss of production during the training period
- Rigid Labour Laws

### Industry's Needs

#### Workforce requirement

- Workforce to be skilled at the time of joining
- Basic understanding of modern manufacturing practices, electronics & production process layouts
- High productivity
- Vendor led machine training

#### Managerial requirement

- Knowledge of modern manufacturing practices - waste minimisation, IT & optimum resource utilisation
- Design capabilities
- Knowledge of optimal production process layouts, process engineering and project management skills
- Awareness of environmental norms

Industry directly needs around 6 million people during FY 2007-12 and availability of skilled manpower would be critical for ensuring sustainable growth



## Suggestions for facilitating manpower training

### ➤ Revamp / strengthen existing institutes -

- ➔ Existing ITIs / engineering institutes need to be supported by the Government and industry for 1) Re-designing of curriculum, 2) Assistance for technical programmes, and 3) Upgradation of infrastructure
- ➔ Textile ITI courses need to be introduced in the existing polytechnics offering textile courses and also Government ITIs by providing necessary infrastructure facilities
- ➔ The existing Nodal Centre for Upgradation of Textile Education (NCUTE) needs to be revamped under the Ministry of Textiles
- ➔ Brand image of Sardar Vallabhai Patel Institute of Textile Management, Ministry of Textiles, which is offering textile management programmes needs to be strengthened and developed
- ➔ Special courses on textile management need to be introduced in select MBA institutions & textile institutes

### ➤ Explore the public-private partnership route -

- ➔ There is a need to establish multiple Indian Institutes of Textile Technology (in close proximity to various textile clusters, ITPs) by floating SPVs - jointly by the industry & Government. The course content would cover requirements of both workers and supervisory level people. Many of them will have centres of excellence (CoE), also set-up through public-private partnerships, to meet the industry's research needs
- ➔ Some of the closed co-operative mills and NTC mills located in textile cluster(s) may be converted into worker training centres through public-private partnership
- Mills should provide apprenticeship to students of these institutes to ensure two way collaboration
  - ➔ Government should identify ways to incentivise the industry to train people to help them maintain their competitive edge
- While designing the training curriculum, separate needs of workers and managerial staff as well as different segments of the value chain needs to be taken into consideration
- Government may consider setting up a corpus to provide capital grant to existing and new institutes to enable speedy implementation of above measures. Institutes would also provide various services to the industry such as R&D, testing, cost optimisation studies, etc. for a user fee to cover recurring expenditure requirements



## Technical textiles, the growth opportunity

- Global market size of ~ USD 107 bn in CY 2005 - estimated to grow at 4% p.a. over next 5 years
- Total world trade in wadding, felt & non-wovens; special yarns; twine, cordage, ropes & cables; and impregnated, coated, covered / laminated textile fabrics alone was roughly around USD 28 bn. in CY 2004
  - ➔ This trade has been growing at around 8% p.a. over the past 5 years
- India has a marginal presence in exports of technical textiles owing to low domestic demand, which has stunted the growth of installed capacity
- Since inception of TUFs (since April 1999), 48 applications for setting up technical textile facilities (including non-wovens), totaling a project cost of USD 213 mn., have been sanctioned - representing a measly 2.3% of total project cost sanctioned under TUFs
  - ➔ Reflects the reluctance of entrepreneurs to invest despite the potential - primarily owing to **lack of market assurance** and **access to technology**

### Government needs to drive investments in the sector through various policy initiatives

- Promote the usage of geo-textiles in roads, soil conservation, etc. domestically. They may be made mandatory in certain instances (e.g. NHAI projects, MMRDA, etc.)
- Make mandatory the usage of flame retardant fabrics in public places - hospitals, multiplexes, school / colleges, industries, etc. and public transportation - trains, buses and taxis
- Setting up CoE in collaboration with international centres to offer domestic know-how and skilled personnel
  - ➔ Textile Research Institute Thuringia-Vogtland (Germany), Georgia Tech's School of Textile & Fibre Engineering, CSIRO Textile & Fibre Technology (Australia) to undertake research and training
- Offering targeted assistance under TUFs by offering upfront capital subsidies (like in processing sector)



## Agenda for firms - build for sustainability

Implementing growth plans would call for strong organisation-wide capabilities

Elements of Capability platform	Examples
<p><i>Developing these capabilities is essential to develop and sustain comparative advantage of individual firms and Indian textile industry as a whole</i></p>	<p><b>Operational skills</b></p> <ul style="list-style-type: none"><li>➤ Product design</li><li>➤ TQM &amp; low cost manufacturing</li><li>➤ R&amp;D</li><li>➤ IT management</li><li>➤ Supply chain management</li></ul>
<p><b>Privileged assets</b></p>	<ul style="list-style-type: none"><li>➤ Distribution channels</li><li>➤ Brands</li><li>➤ Credibility / reputation</li><li>➤ Customer / Order history database</li><li>➤ Marketing infrastructure</li><li>➤ Intellectual property</li></ul>
<p><b>Growth-enabling skills</b></p>	<ul style="list-style-type: none"><li>➤ Acquisition and post merger management</li><li>➤ Financing and risk management</li><li>➤ Cash flow management</li></ul>
<p><b>Special relationships</b></p>	<ul style="list-style-type: none"><li>➤ Customers</li><li>➤ Suppliers</li><li>➤ Business partners</li><li>➤ Government</li><li>➤ EPCs / Industry</li></ul>

*The firm level agenda will also be a function of structural issues impacting competitiveness in individual product segments*



## Firms need to focus on increasing their competitiveness

- **Control over supply chain essential** - work closely with suppliers and customers to reduce the working capital cycle to release funds for capital investment.
- **Work closely with customers** to understand their needs, reduce inventories & design innovation
- **Offer innovative product designs** to customers rather than they first asking for it
- **Invest in information technology** - Develop a database of designs and to store case histories of each order (design supplied, raw material supplier for manufacturing that product, price at which raw material supplied, consumption norms, duty rates, time taken for goods to reach buyer-gate, average realisation on the sales, cost of manufacturing the order, etc.)
- **Benefits -**
  - ➔ Strong in-house knowledge database to ensure quick order turn-around, next time when a similar order is obtained
  - ➔ Helps develop competencies in catering to needs of other buyers
  - ➔ Data points such as 'cost to supply' and 'unit realisation' would also help the manufacturer to identify critical areas where costs may be reduced and productivity improved. This would be important from the perspective of keeping up with falling unit realisations in quota-free era and maintaining / increasing profit margins
- Obtain **certifications** - Okotex 100/1000, SA 8000, ISO 9000/ 14000 to overcome market barriers
- Buyers to **focus on "companies" rather than countries** - scale & integration important
- Increase share of **branded exports** from the country and thereby individually help promote a **"Made in India"** brand to connote quality and global best practices



## Key risk factors that could derail industry growth...

- **Rising imports** - FTA's, especially with Asian countries (BIMSTEC, Indo - ASEAN, SAFTA, Singapore and Thailand) should have adequate safeguards in terms of stringent adherence to Rules of Origin (to prevent countries outside the FTA from diverting trade through partner countries) and suspension of concessionary tariffs in event of damage to local industry
  - ➔ Without safeguards and implementation of measures to make the domestic industry competitive, imports would increase and pose a threat to the realisation of Vision targets
- **Raw material availability** - Ensuring adequate domestic availability of cotton and man-made fibre is critical to maintain the cost competitiveness of the industry and meet requirement of various types of yarn. Mismatch between domestic production and consumption can lead to increased imports of fibre and thereby expose the industry to international price fluctuations
- **Slowdown in consumer spending** - Slowdown in global and Indian economy, decline in savings in the developed world can affect consumer expenditure on textiles and clothing leading to shortfall in projected growth trends
- **Investment slowdown** - Slowdown in investments in the sector would lead to underachievement of production output targets which in turn would constrain the industry from tapping the market opportunity in both domestic and export segments



**As per the conditions of its entry into  
WTO, developed countries can apply  
selective quotas on China until 31<sup>st</sup>  
December 2008**

**This provides us, perhaps, with a last  
window of opportunity to establish  
credentials and put the industry on a  
firm footing !**



## Section 6

# ANNEXURE

## Scenario analysis of growth

Particulars	Low growth scenario	Base case scenario	High growth scenario
Household consumption and export market size	USD 90 bn	USD 110 bn	USD 120 bn
VOP of apparel and non-apparel industry	USD 61 bn	USD 76 bn	USD 83 bn
Production numbers			
Yarn	7.6 bn kg	9.4 bn kg	10.2 bn kg
Fabric	78.8 bn sq mtrs	97.3 bn sq mtrs	105 bn sq mtrs
Garment	17.3 bn pieces	22 bn pieces	25 bn pieces
Total investment required	Rs 1,22,000 Cr.	Rs 1,94,000 Cr.	Rs 2,27,000 Cr.
Employment generation potential	9 million	14 million	18 million

### Key Assumptions

- Low growth scenario
  - ➔ Export market size of USD 40 bn (6% share of world trade) & household consumption market (retail level) of USD 50 bn
  - ➔ Growth in domestic apparel market (retail level) at 9% p.a. from USD 14 bn in 2005 to USD 25.2 bn by 2012
- Base case scenario
  - ➔ Export market size of USD 50 bn (7% share of world trade) & household consumption market (retail level) of USD 60 bn
  - ➔ Growth in domestic apparel market (retail level) of over 13% p.a. from USD 14 bn in 2005 to USD 33.4 bn by 2012
- High growth scenario
  - ➔ Export market size of USD 55 bn (8% share of world trade) & household consumption market (retail level) of USD 65 bn
  - ➔ Growth in domestic apparel market (retail level) of over 16% p.a. from USD 14 bn in 2005 to USD 40 bn by 2012

Source: CRISIL Estimates and Industry workshops



## Assumptions for investments - garments

Garmenting	Units	
Number of pieces in 2012	bn pieces	22
Number of pieces in 2006	bn pieces	10
Additional pieces required by 2012	bn pieces	12
Number of pieces per day per machine	pieces	15
Number of working days in a year	days	300
Number of pieces per year per machine	pieces / year	4,500
Number of machines required	no	2,674,074
Capital cost of new machine	Rs lakhs	1.5
% of second hand machines	%	0%
<b>Investment required</b>	<b>Rs Cr</b>	<b>40,111</b>

Source: SIMA, Industry, CRISIL Estimates



## Assumptions for investments - knitting

Knitting	Units	
Knitted fabric required in 2012	bn sq mtrs	24
Knitted fabric produced in 2006	bn sq mtrs	10
Additional fabric required by 2012	bn sq mtrs	14
Conversion factor (sq mtrs to kg)	sq mtrs / kg	6
Additional fabric required by 2012	mn kg	2,336
Average production per machine per day	kg / day / machine	180
Number of working days in a year	days	356
Average production per machine per year	kg / year / machine	64,080
Number of machines required	no	36,451
Capital cost of new machine	Rs Cr	0.35
Capital cost of second hand machines	Rs Cr	0.10
% of second hand machines	%	25%
<b>Investment required</b>	<b>Rs Cr</b>	<b>10,480</b>

Source: SIMA, Industry, CRISIL Estimates

- ➡ Knitted fabric is assumed to be 25% of total fabric production in FY 2012, based on current trend of rising share of knitted fabrics in total fabric production



## Assumptions for investments - processing

Processing	Units	
% of processing of export oriented fabric	%	100%
% of processing of domestic oriented fabric	%	75%
Incremental fabric required for domestic consumption by 2012	bn sq mtrs	46
Incremental fabric required for exports by 2012	bn sq mtrs	2
Additional processed fabric demand	bn sq mtrs	37
Additional processed fabric demand	bn linear mtrs	17
Number of meters processed per day	linear mtrs / day	100,000
Number of working days per year	days	356
Cost of modern process house	Rs Cr per 100000 mtrs / day capacity	90
Investment required for new modern process houses	Rs Cr	42,086
Additional investment required for modernisation of existing process houses (assumed as 20% of investment in new process houses)	Rs Cr	8,417
<b>Total investment required in processing</b>	<b>Rs Cr</b>	<b>50,503</b>

Source: SIMA, Industry, CRISIL Estimates

- % requirement met from second hand or technologically less advanced processing machinery is assumed to be zero for fresh capacities
- Given that there is an urgent need to modernise the existing process houses as well, it is assumed that an additional 20% of the investment required for new process houses would be required for modernisation purposes



## Assumptions for investments - weaving

Weaving	Units	
Woven fabric required in 2012	bn sq mtrs	73
Woven fabric produced in 2006	bn sq mtrs	39
Additional fabric required by 2012	bn sq mtrs	34
% of additional fabric production on shuttle-less looms		70%
% of additional fabric production on automatic looms		20%
% of additional fabric production on semi-automatic looms		5%
% of additional fabric production on plain looms		5%
Production per shuttleless loom per day	sq mtrs / day	500
Production per automatic loom per day	sq mtrs / day	175
Production per semi-automatic loom per day	sq mtrs / day	110
Production per plain loom per day	sq mtrs / day	100
Number of working days in a year	days	356
Capital cost of new shuttleless loom	Rs lakhs	25
Capital cost of new automatic loom	Rs lakhs	10
Capital cost of new semi-automatic loom	Rs lakhs	1
Capital cost of new plain loom	Rs lakhs	1
Capital cost of second hand shuttleless looms	Rs lakhs	12
Capital cost of second hand automatic looms	Rs lakhs	3
Capital cost of second hand semi-automatic looms	Rs	-
Capital cost of second hand plain looms	Rs	-
Number of shuttleless looms required	no	134,592
Number of automatic looms required	no	109,871
Number of semi-automatic looms required	no	43,699
Number of plain looms required	no	48,069
% of second hand shuttleless looms	%	35%
% of second hand automatic looms	%	15%
% of second hand semi-automatic looms	%	0%
% of second hand plain looms	%	0%
<b>Total investment required in weaving</b>	<b>Rs Cr</b>	<b>38,155</b>

Source: SIMA, Industry, CRISIL Estimates



## Assumptions for investments - spinning

Spinning	Units	
% of yarn output required by 2012 in spun yarn form	%	70%
Spun yarn output required by 2012	mn kg	6,597
Spun yarn output in 2006	mn kg	3,387
Incremental spun yarn output required	mn kg	3,210
Output per spindle per day	Kgs/day/spindle	0.45
Number of working days in a year	days	356
Output per spindle per annum	kg / year	160
Number of spindles required for fresh capacities	mn	20
Existing working capacity	mn	29.8
Extent of spindle demand owing to modernisation of existing spindleage	%	30%
Total number of spindles required (including modernisation)	mn	29
Cost of modernisation of existing spindleage	Rs. / spindle	10,000
Cost of new spinning plant	Rs. / spindle	20,000
% of spindleage for fresh capacities acquired second hand	%	15%
Cost of second hand spinning unit	Rs. / spindle	10,000
Number of second hand spindles purchased	mn	3
<b>Investment required</b>	<b>Rs. Cr.</b>	<b>46,012</b>

Source: SIMA, Industry, CRISIL Estimates

- 70% of the total yarn requirement in FY 2012 is assumed to be met by spun yarn, based on current production trends
- Owing to reasons of capacity constraint in domestic machinery industry and high cost of new European machinery, as cited in the Chapter on facilitating capital investments (Section 4), it is envisaged that part of the demand for spindles required for fresh capacities would be met from second hand imports
- Further, owing to limited availability of second hand spindleage in the market, the extent of second hand spindleage that can be acquired has been restricted to not more than 15% of total requirement for fresh capacities



## Assumptions for investments - man-made filament yarn

Filament yarn	Units	
Filament yarn output required by 2012	tonnes	2,827,188
Filament yarn output in 2006	tonnes	1,179,340
Incremental filament yarn output required	tonnes	1,647,848
Capital cost of a greenfield unit	Rs / tonne	70,000
Capital cost of a brownfield expansion	Rs / tonne	50,000
% of brownfield expansion to total	%	75%
<b>Investment required</b>	<b>Rs Cr.</b>	<b>9,063</b>

Source: SIMA, Industry, CRISIL Estimates

- 30% of the total yarn requirement in FY 2012 is assumed to be met by man-made filament yarn, based on current trends in rising share of filament yarn production
- Investment numbers worked out considering a PFY unit





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