

## **INDIA RISING: OPPORTUNITIES IN NONWOVENS AND TECHNICAL TEXTILES**

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- India will defy the existing nonwoven growth theory and will grow exponentially from 2035 with the rising income levels.
- India's growth in the technical textile industry in the next two decades will be faster than the one witnessed by the US and Europe in the last three decades – Our Prediction.

### **Introduction**

Economy, in particular the losses of manufacturing jobs occupy the centre stage in the Presidential election campaigns in the US these days. This has been a dramatic shift from other issues that were considered priority six months back. Some economic pundits are predicting recession in 2008 in the United States. However, this situation is quite a contrast 10,000 miles away— India. India is rising and moving ahead with opportunities in every sector. For the past four years, India's GDP has grown over 8%. The growth in 2007 reached as high as 9.4% and is predicted to be in between 8-9% in 2008. The Indian middle class population is over 300 million which is set to spearhead the growth of the nonwoven and technical textile industry. According to Goldman Sachs, India's economy will exceed the economy of Europe and Japan by 2030 and that of the US by 2045. Such a growth is possible because of the increase in household incomes and the predicted growth in agriculture, manufacturing and service sectors. The consumer spending level is

growing over 5% per annum which has resulted in the ongoing growth of organized retail sectors. India's population of 1.1 billion of which one-third being middle income group, plays an important role with the growth of India's economy. India has roughly one hundred million people who are less than 25 years in age, out of which approximately 25 million are highly educated and this number is still growing. The economy gets a boost due to the growing middle class, young and educated population. These are vital factors for the growth of nonwoven and technical textile industry in India. The 11<sup>th</sup> five year plan of the Government of India (April 2007-March 2012) calls for an all inclusive growth which is expected to reach double digits by the end of the fiscal year 2012. This clearly emphasizes the growth needed in agriculture and manufacturing sectors, as the IT and service sectors have done extremely well in recent years. Taking this mandate of the National Planning Council into consideration, the Ministry of Textiles of India has taken nonwoven and technical textile sector as an important thrust area for support and growth. Several positive schemes at the central government level have been implemented to support the growth of the nonwoven and technical textile industry in India. A major support scheme has been the launching of the National Technology Mission for Technical Textiles by the Honorable Prime Minister of India, which will be implemented during the 11<sup>th</sup> five year plan to promote the development of the technical textile industry base in India with a budget of US\$ 170 million. This technology mission is in addition to the inclusion of technical textiles sector in the Technology Upgradation Fund scheme. These supportive schemes from the Government of India as well as the growth in the middle class population are expected to change the nature of the technical textile industry in the next five to ten years. This fits with the goal of India Inc. and the vision of the Ex-President of India, Dr. Abdul Kalam to enable India to be an industrialized and developed nation by 2020. This article will highlight some of the recent developments that have taken place in India to boost the technical textile industry. In addition, we predict that India's per capita consumption of nonwovens will exceed than that of the United States at a per capita GDP of US\$50,000. An important prediction is that in the next two decades, the rate of growth of nonwoven and technical textile industry will be far ahead than what it was in the US and Europe

during the last three decades, during which the industry in the western hemisphere grew and matured. Therefore, growth is certain in India and hence it is the place for international players to be active.

### **India's Consumption of Nonwovens (2007-2050)**

The liberalization of the Indian economy in 1991 coincided with the booming of information technology sector. This fortuitous development has led to the growth of middle class population with disposable incomes. In addition, since 2000 India is gearing up with one-stop superstores which are commonly referred to as “big bazaars” and most recently with organized retail stores and malls. The economy and the growth in the sales outlets will lead to a higher consumption of disposable items such as nonwovens. Furthermore, the Government is planning to spend a large sum of money for infrastructure projects such as highways and bridges which consume semi-durable and durable nonwovens and technical textiles. According to estimates by INDA and EDANA, the current per capita consumption of nonwovens in India is less than the meager amount of 100 grams, whereas the per capita consumption of nonwovens in developed markets such as US and Western Europe is around 3-3.5 kilograms. As is evident from the growth of the nonwoven industry in developed markets, it has taken nearly four decades to cross the threshold level of 3 kilograms per capita consumption. More interestingly, the per capita consumption of nonwovens is directly correlated with the per capita income levels of the population. Nonwoven and technical textile pundits are in agreement with this theory. However, no one has predicted the growth of the nonwoven industry based on per capita consumption in India in relation to India's per capita income level for the next four decades. Our analysis using per capita income levels from World Bank has led to some interesting conclusions that will be of enormous interest to the global nonwoven and technical textile industry. For this analysis, we have used certain baseline figures which were drawn from the data published by the World Bank. We present our original estimates of India's per capita nonwoven consumption based on World Bank's income estimates. As per the World Bank data for 2007, per capita GDP of the United States and India are US\$ 45,817 and US\$ 946.1 respectively. At

this per capita income level, we assume India's per capita consumption of nonwovens is 80 grams. We are using the annual growth rate for the US and India's economy to be 4.6% and 13.27% respectively. These figures are the average growth rates of the two countries US and India respectively from 2003-2007. We have used these growth rates to calculate the per capita nonwoven consumption for India and USA for the years 2005-2050. Tables I and II provide the per capita income levels and the corresponding nonwoven consumption for the years 2005-2050. Since the data will be exhaustive, we are providing the data for every five years from 2005-2050.

Table I:

**CONSUMPTION OF NONWOVENS IN INDIA vs. GDP PER CAPITA**

*(ASSUMING AN INCREASE OF 13.27% IN PER CAPITA EVERY YEAR)*

<b>YEAR</b>	<b>GDP PER CAPITA (US\$)</b>	<b>CONSUMPTION OF NONWOVENS (Kg)</b>
2005	733	0.08
2010	1374	0.15
2015	2563	0.27
2020	4780	0.51
2025	8912	0.95
2030	16618	1.77
2035	30985	3.31
2040	57773	6.16
2045	107720	11.49
2050	200850	21.43

Table II:

**CONSUMPTION OF NONWOVENS IN USA vs. GDP PER CAPITA**

*(ASSUMING AN INCREASE OF 4.6% IN PER CAPITA EVERY YEAR)*

<b>YEAR</b>	<b>GDP PER CAPITA (US\$)</b>	<b>CONSUMPTION OF NONWOVENS (Kg)</b>
2005	42499	3.5
2010	52435	4.32
2015	65656	5.41
2020	82213	6.77
2025	102943	8.48
2030	128901	10.62
2035	161404	13.29
2040	202103	16.64
2045	264705	20.84
2050	331452	26.10

As you may note from the Tables, the growth rate in per capita GDP used for the nonwoven consumption is same as that of the growth rate assumed for the economy. This is fairly an accepted theory in the industry with regard to the relationship between per capita GDP and nonwoven consumption growth. Assuming that the industry is fairly developed when the per capita consumption of nonwovens reaches 3-3.5 kilograms, i.e., the current state of the US and Western Europe industry, India will reach this level in 2035. India's nonwoven and technical textile industry is highly currently fragmented and is in the embryonic stage. The industry is poised to have a double digit growth of around 13-15% per annum in the next two decades, leading up to a developed stage in 2035. During this period, developed markets such as US and Western Europe are set to grow at a much slower rate of

around 5%. Therefore, it is of much value for the global industry to take India seriously and take part in the growth enabling its own development.

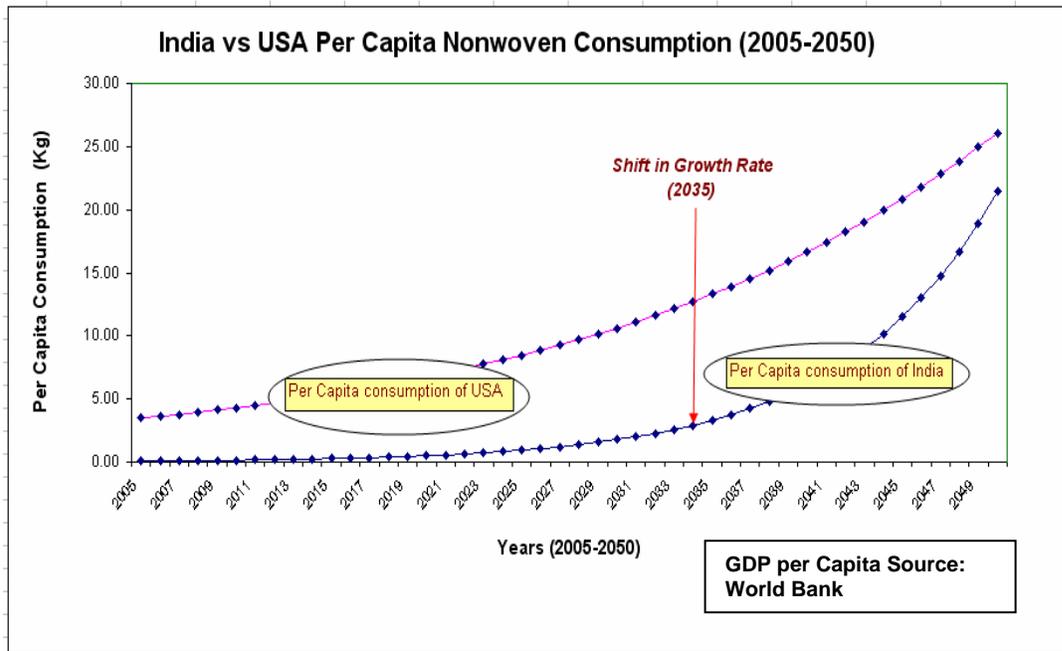


Figure 1: India vs. USA per Capita Consumption

Figure 1 delineates the growth in the nonwoven industry in the US and India as measured by the growth in per capita consumption. As is evident from Figure 1, the nascent Indian industry will grow steadily in the next two decades reaching the threshold level of 3 kilograms in 2035. Interestingly, at this level, Indian industry behaves differently from those of the US and Western Europe and starts growing exponentially providing enormous opportunity for the industry. Whereas, the US industry will grow only slowly at a rate of around 5% beyond the threshold level of per capita consumption of 3 kilograms. Indian growth story will defy the well established growth theory in our industry. China will also behave similarly but at a different stage in the years to come. Therefore, where is sustained growth? It is definitely in India at an annual rate of 13% from now till 2050 and beyond.

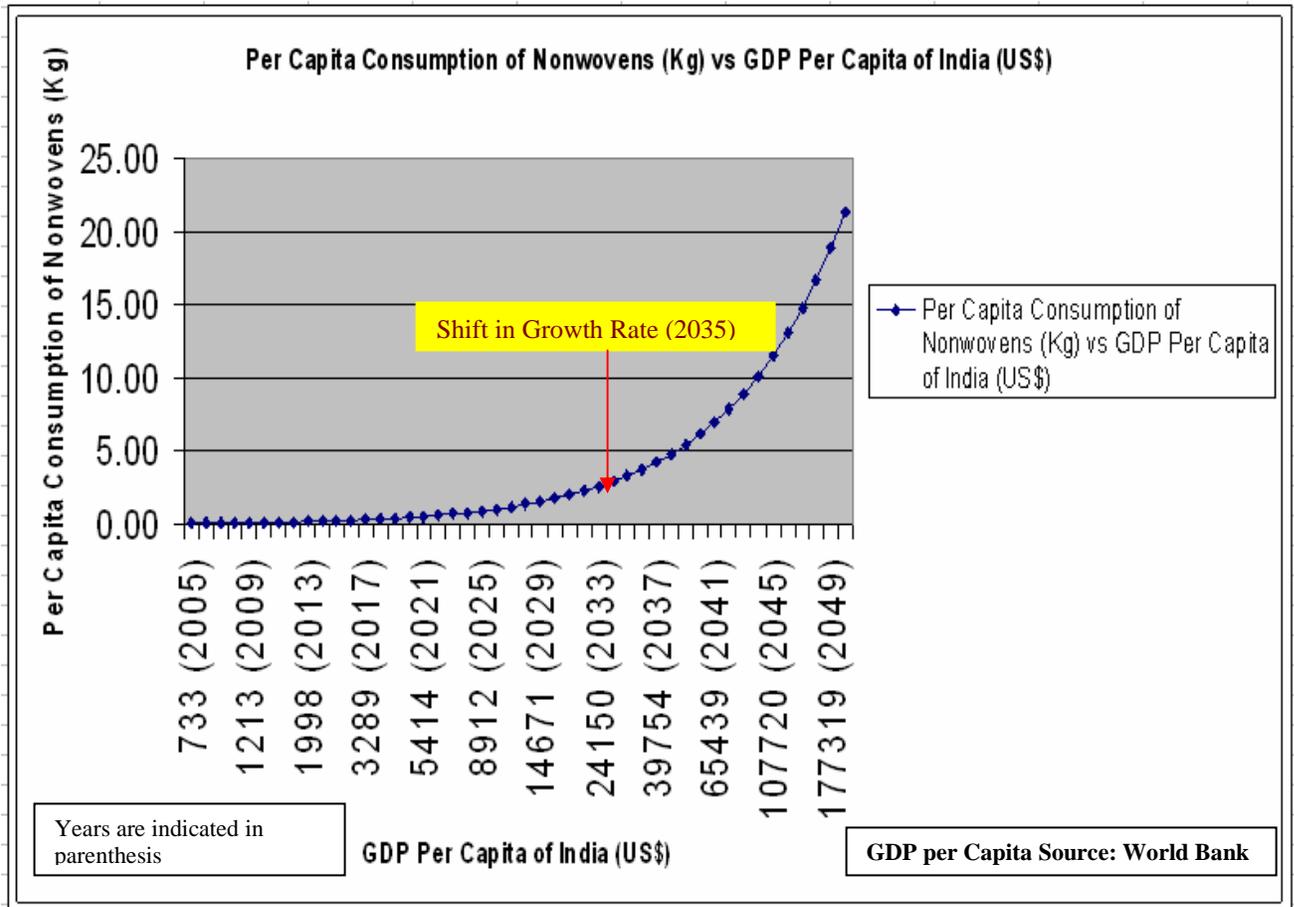


Figure 2: India's Per Capita Consumption vs. Income Levels

Figure 2 shows the phenomenal growth of the Indian industry from the embryonic stage (2007) through its infancy (2010 – 2035) and then through the developed stage (2035 and beyond). Per capita income levels for 2005-2050 plotted against the nonwoven consumption indicates tremendous growth with a phase change in 2035 enabling exponential growth from this stage. These figures will be extremely valuable for the Indian and global industry to plan their activities for next few decades to come. The take home message here is India's nonwoven and technical textile industry will grow twice as fast as the growth of the current developed markets during its growth phase. Although, India's industry base is extremely small currently with an annual total production of 60,000 tonnes, the next two decades are set to change the nature of Indian technical textile industry and provide an ample growth opportunity of over 13% per annum.

## **Drivers for Growth in India**

As briefed in the introduction, the growing middle class population and rise in income levels of half of India's population are the major drivers for the growth of Indian nonwoven and technical textile industry. In addition, there is much interest in both the public (Government) and private sectors to look into opportunities beyond the conventional textile chain i.e., fibre to fashion. This situation is quite a contrast to what is happening in the United States and the rest of the developed economies. Recent reports about the US textile funding for the FY2008 estimate that the funding will remain similar to that of FY2007 level with a major cut in the R&D spending for textiles which will not be a welcoming one by the US textile industry. So both from the perspectives of private and public sectors in India, time is ripe to invest in nonwoven and technical textile industry. The Government of India is coming under pressure to provide with incentive schemes to sustain and develop the textile industry which contributes to nearly one third of foreign exchange income through exports. In addition, textile industry provides the second highest employment next to agriculture. Therefore, both from economic and political points of view, Government has to support the growth of the textile industry by tapping into untapped segments such as nonwoven and technical textiles. Furthermore, according to the Planning Commission of India, the 11<sup>th</sup> five year plan should enable an all inclusive growth, meaning growth not only in the high skilled IT sector. In order to rise the income levels of unskilled and under represented people, growth should occur in agriculture and manufacturing sectors. Textile industry occupies an important position within the manufacturing sector in India and hence receives the attention of the upper echelons of Indian administration. This situation has heightened due to the current decline in the export of commodity textiles due to the hike in rupee against dollar. Indian conventional textile industry's comparative advantages such as low cost skilled labour and dollar rupee ratio have started eroding in the last year. For example, rupee became strong by 12% against dollar within one year resulting in dramatic decrease in the influx of foreign exchange via exports. In addition, the labor advantage that India has, is becoming competitive with challenges from countries such as Vietnam, Cambodia and Bangladesh that are capable of providing high

skilled low cost labor in the commodity textile sectors. Hence, the preferred option for the textile industry is to enlarge its competency in related textile fields such as nonwoven and technical textiles. The nonwoven and technical textile industry provides a safe haven, in that it can cater to both the burgeoning domestic and export markets.

### **Government Schemes**

The Government of India during its 11<sup>th</sup> five year plan i.e., April 2007 – March 2012 has initiated and has continued with several positive schemes to support the growth of nonwoven and technical textile industry. The National Mission for Technical Textiles was launched by the Honorable Prime Minister of India, Dr. Manmohan Singh, in the Texsummit-2007 conference on September 1, 2007 in New Delhi. This ambitious mission has a budget of US\$ 170 million for the next five year period. The main aim of the mission is to grow the current technical textile industry to a size of around 12-15 billion dollars by 2012. The mission will be divided into four mini-missions, which will focus on creating awareness, human resource development, capacity building of the nonwoven and technical textile industry base and the related machinery industry base, establishing centers for research excellence and support with testing and standardization. This mission spans the entire spectrum of the technical textile industry and focuses on those areas that will aid the growth of the industry. The Government has identified four important sectors within the technical textile industry for immediate attention and growth. These are:

1. MEDTECH;
2. GEOTECH;
3. AGROTECH and
4. PROTECH.

As is evident from these prioritized sectors, durable and semi-durable technologies will take the front seat and disposable technologies will follow.

The Technology Upgradation Fund scheme which was launched in 1999 to provide a shot in the arm for the under developed sectors of the textile chain will be continued during the 11<sup>th</sup> five year plan. This scheme provides 10% capital subsidy

upfront for new projects involving new machinery in technical textiles with the addition of 5% interest subsidy on the loans. Technical textile sector was not included in the earlier five year plan period and it is glad to report that investors in the technical textile sector will be able to avail this subsidy. Almost all technical textile machinery such as coating and laminating, spunmelt machinery, carded and thermal bonding machines and converting machines are covered under this scheme. The basic custom duty on imported technical textile machinery has been reduced from 10% to 5%, so that the effective customs rate comes around 20%.

The Government has created Special Economic Zones (SEZs) with the aim of enhancing Foreign Direct Investments and exports from India. There are fourteen Special Economic Zones in India that have been approved which have focus on textile related activities. Examples include:

1. MUNDRA SEZ in the western state of Gujarat,
2. MAS HOLDINGS SEZ in South India, etc.

These SEZs provide duty free imports and domestic procurement for 100% exports. Several tax incentives are provided for entities that are setting up their operations in SEZs. The details on SEZs can be obtained from the Ministry of Commerce, Government of India. In addition, to the incentive schemes provided by the Central Government for the technical textile industry, some state governments have their own attractive schemes. The State of Gujarat provides 10% investment subsidy for technical textile projects. Most recently, the Government of the State of Tamilnadu has come up with its new industrial policy aimed at promoting the manufacturing sector.

### **Some Noteworthy Points Concerned with Indian Technical Textile Industry**

- National Mission on Technical Textiles with a budget of US\$ 170 million for five years
- India is fairly self reliant in raw materials for nonwovens
  - India has the largest polyester manufacturer (Reliance Industries Limited)

- India will become the second largest producer of cotton in 2008.
- Lenzing Group and Modi Group of India will collaborate in building a viscose plant with a capacity of 80,000 tonnes per annum.
- R & D Infrastructure
  - According to the sources from the Office of the Textile Commissioner of India, Government will invest in 20 centers of excellence in research on nonwoven and technical textiles in the next five years. Four centers will be approved by the end of March 31<sup>st</sup> 2008 that will focus on GEOTECH, MEDTECH, PROTECH and AGROTECH.
- Awareness Programmes
  - Government will spend at least 10 million Indian rupees per annum for next five years for creating awareness among entrepreneurs for growing the industry.
- Technology Information and Forecasting Assessment Council (TIFAC)

An autonomous body under the Department of Science and Technology, India will be investing around 18 million Indian rupees for setting up of a centre for excellence in technical textiles as a private-public partnership in DKTE College of Engineering in Ichalkaranji in the State of Maharashtra. This program is unique in that it will have contributions from institute and industrial partners worth 36 million Indian rupees to undertake mission linked projects to promote nonwoven and technical textile industry. TIFAC has already established a centre in Kumaraguru College of Technology in South India whose focus is to strengthen the research and development in textile machinery and allied sectors. The total budget cost has been 37.6 million Indian rupees.

## **Conclusions**

India's technical textile industry will be worth 12-15 billion dollars by 2012, which will be 10% of the global value. As recent as January 16<sup>th</sup> 2008, the Government of India is planning on measures to grow the economy in FY2008 and beyond by boosting the weaker sectors such as manufacturing and agriculture. Apart from the National Mission to promote technical textiles, positive schemes such as Technology Upgradation Fund and reduction in the basic customs duty on imported nonwoven and technical textile machinery to 5% are worthy of mentioning. Indian Government unlike the Governments of developed and industrialized nations, promotes the growth of the textile sector as it is the bread winner for the middle and lower middle income people who constitute the major chunk of the electorate. Both politics and economy dictate the need for such support schemes and promotion. We predict that the period between 2010 and 2035 will be crucial for the technical textile sector in India and will provide ample opportunities for both international and domestic players with a growth rate of 15% per annum. India is shining and is certainly a technical textile playing field to be in for the next three decades.

## **Sources**

1. Ministry of Textiles, Government of India
2. World Bank Statistics