

## **CHAPTER - 3**

### **RAW MATERIALS FOR THE TEXTILES INDUSTRY**

#### **INTRODUCTION**

3.1 The broad based vertically integrated textiles industry consumes a diverse range of textiles fibres, and yarns to produce various types of products for the domestic and export markets. The range of fibres consumed by the industry includes natural fibres like cotton, silk, wool, jute and man-made fibres like polyester, viscose, nylon, acrylic, polypropylene, etc. Though the textiles industry is pre-dominantly cotton based, the consumption of other fibres / yarns is also significant. Considering the significance of raw material for the finished product, it is imperative to augment the availability of different fibres / yarns at reasonable prices.

3.2 In this chapter, only the issues concerning raw cotton and man-made fibres / yarns will be discussed. Other raw materials like silk, wool, and jute will be discussed in respective chapters of the textile industry.

#### **PERFORMANCE DURING THE TENTH FIVE YEAR PLAN**

##### **Production**

###### ***Cotton***

3.3 During the Tenth Plan, the production of cotton was projected to increase from 158 lakh bales to 216 lakh bales by the terminal year of the Plan, and the yield was projected to increase from 300 kg. per hectare to 420 kg. per hectare. Against these projections, the cotton production has already increased to 244 lakh bales (exceeding the target for the terminal year of the Plan) and is expected to reach a figure of about 260 lakh bales in the terminal year of the Tenth Plan, i.e., 2006-07. The yield has also increased to 470 kgs per hectare in the year 2005-06 as against the projected figure of 420 kgs. per hectare by the terminal year of Tenth Plan. The increased production is on account of higher yield, as area under cotton cultivation has moved in a limited range of 8 million hectare to 9.20 million hectare during the period. The factors which have contributed to the increase in cotton productivity are research and development activities for high yielding seeds, including BT and other hybrid seeds, favourable agro climatic conditions and transfer of technology

including better farm practices through the efforts of Mini Mission 1 & 2 of Technology Mission on Cotton (TMC).

#### ***Man-made fibres / yarns***

3.4 During the Tenth Plan, the production of man-made fibres / yarns was projected to increase from 2086 million kg. in 2002-03 to 2753 million kgs. in 2006-07 with an annualized rate of growth of 7 percent. The actual increase in man-made fibre/yarn production has been 2015 million kgs in 2002-03 to 2148 million kgs in 2005-06 is registering an annual rate of growth of 4.57 percent. During the Tenth Plan period, the performance of cotton has been better compared to man-made fibres / yarns. Cotton production has exceeded the target, while man-made fibres /yarns are not expected to meet the projected target for the terminal year of the Tenth Five Year Plan.

### **Consumption**

#### ***Cotton***

3.5 During the Tenth Plan, cotton consumption by mills was expected to increase from 173 lakh bales (of 170 kg. each) in 2002-03 to 202 lakh bales by the terminal year of the Tenth Plan (2006-07) at a compounded growth rate of 3.39 percentage. The actual increase in cotton consumption has been from 159 lakh bales to 190 lakh bales in 2005-06, showing a compounded growth of 4.57 percent.

#### ***Man-made fibres / yarns***

3.6 During the Tenth Plan period, the consumption of man made fibres / yarns was expected to increase from 2035 million kgs in 2002-03 to 2684 million kgs. by the terminal year of the Plan at a compounded annual growth rate of 5.48 percent. However, the actual increase in consumption has been from 2015 million kgs. to 2154 million kgs. in 2005-06 registering a growth of 2 percentage. Polyester staple fibre / filament yarn is the major component of the man made fibre/ yarn segment and constitutes about 70-79 percent of the total production of man-made fibres/ yarns. In the man-made fibres / yarns segments only acrylic staple fibre and polypropylene fibre have exceeded targets during the first four years of the Plan. The production of viscose and polyester has been below the target during the entire Plan period.

## **Import & Export of fibres / yarns**

### **Cotton**

3.7 During the Tenth Plan period, there was a steady decline in the import of cotton. The import was 17.67 lakh bales in 2002-03, which declined to 4 lakh bales in 2005-06. Against this, there has been steady increase in export of cotton. The export in 2002-03 was 0.84 lakh bales which increased to 33 lakh bales in 2005-06. The decline in import and increase in export is on account of higher cotton production within the country, vis-à-vis its domestic consumption by the mills. The country became a net exporter of cotton during the last two years.

### **Man-made fibres / yarns**

3.8 There has been significant increase in the export of man-made fibres/ yarns during the first four years of the Tenth Five Year Plan. This increased from 150 million kgs in 2002-03 to 178 million kgs. during 2004-05. The maximum export was that of polyester filament yarn. Simultaneously, there has been a decline in the import of man-made fibres during the period. Import declined from 174 million kgs in 2002-03 to 147 million kgs. in 2004-05. The maximum import was that of polyester filament yarn. Thus during the Tenth Five Year Plan, the man made fibres / yarns industry was a net exporter.

## **APPROACH TO THE ELEVENTH PLAN**

3.9 The approach to the Eleventh Plan is to develop a strong multi fibre base with emphasis on:

- Increasing the yield of cotton to a level of 700 kgs. per hectare.
- Increasing the production of Extra Long Staple (ELS) cotton to reduce the gap between demand and indigenous supply of ELS cotton.
- Increasing the production of specialty and high tenacity man-made fibres / yarns.

## **PROJECTIONS FOR THE ELEVENTH PLAN**

3.10 Keeping in view, the demand projections for cloth and also the performance of the raw material sector during the Tenth Plan period, the fibre wise production of raw materials for the textile industry was discussed in chapter – 2.

3.11 Based on the fibre wise analysis, the projected figure of consumption of cotton and man-made fibres / yarns is given below:

**Table 3.1**  
**Projected fibre / yarn consumption by the textiles industry**  
**during the Eleventh Plan**

(In Mn. Kg.)

Name of the Fibre / yarn	Tenth Plan		Assumed growth rate during the Eleventh Plan	Projected consumption				
	2005-06	2006-07		2007-08	2008-09	2009-10	2010-11	2011-12
<b>Cotton (I) (Mill consumption SSI &amp; Non-SSI)</b>	3222 (190)	3576 (210)	12.27	4015 (236)	4508 (265)	5061 (298)	5682 (334)	6379 (375)
<b>Man-Made Fibres</b>								
V.S.F.	231	231	5	243	255	267	281	295
P.S.F.	615	746	10	821	903	993	1092	1201
A.S.F.	112	142	10	156	172	189	208	229
P.P.S.F.	3	2	6	2	2	2	3	3
<b>Sub-Total (II)</b>	<b>961</b>	<b>1121</b>	<b>9.04</b>	<b>1221</b>	<b>1331</b>	<b>1452</b>	<b>1583</b>	<b>1728</b>
<b>Man-Made Filament yarns</b>								
V.F.Y.	49	49	2	50	51	52	53	54
N.F.Y.	31	32	5	34	35	37	39	41
P.F.Y.	1099	1251	10	1376	1514	1665	1832	2015
P.P.F.Y.	14	15	5	16	17	17	18	19
<b>Sub-Total (III)</b>	<b>1193</b>	<b>1347</b>	<b>9.59</b>	<b>1475</b>	<b>1617</b>	<b>1771</b>	<b>1942</b>	<b>2129</b>
Non-mill cotton consumption	255 (15)	257 (15)		257 (15)	258 (15)	258 (15)	259 (15)	260 (15)
<b>Grand Total</b>	<b>5631</b>	<b>6301</b>	<b>10.74</b>	<b>6969</b>	<b>7713</b>	<b>8542</b>	<b>9466</b>	<b>10495</b>

Note: Figures in the brackets are lakh bales of 170 kg. each.

3.12 Based on the above analysis, the consumption of fibres / yarns will grow at an average of about 10.74 percentage by the terminal year of the Eleventh Plan. The most dynamic growth during the period is expected to be in the cotton sector.

3.13 On the basis of the projections made for the Eleventh Plan, the share of non-cotton fibres in the overall consumption of raw materials will decrease from the present 39 percent to 37 percent while that of cotton will increase from 60 percent to 63 percent.

3.14 In the global scenario, the consumption ratio of cotton to non-cotton is 40: 60, while in India it is reverse. The projected consumption ratio indicates the continuation of the same trend. This consumption trend is on account of the fact that cotton production is on the upswing and India is expected to emerge as the second largest producer of cotton in the world. It is appropriate to consume cotton produced in the country (instead of exporting raw cotton) to produce value added products for the domestic and export market. Further, cotton is a rich man's fabric and commands a premium in the world market. Therefore, the export of value added cotton based products will improve the foreign exchange earning of textiles industry.

### **Projected production**

#### ***Cotton***

3.15 The area under cotton cultivation has been moving in the limited range of 8 million hectares to 9.20 million hectares over the last several years. Since cotton has to compete with other cash crops like soybean, groundnut, sugarcane, tobacco, chilies, etc., it is expected that the area under cotton cultivation, during the Eleventh Five Year Plan may remain in the range of 9 million hectares to 9.5 million hectares. Although the yield per hectare in the country has increased significantly in the last 2-3 years, it is much lower than the world average of 725 kgs. per hectare, and the average yield of 769 per hectare in Pakistan, and 1119 kgs. in China. With the further possibility of higher use of BT seeds / hybrid seeds, and a decline in the cost of such seeds, it is projected that by the terminal year of the Eleventh Plan, the yield per hectare will increase to 700 kgs. and cotton production should reach the level of 390 lakh bales.

#### ***Man-made fibres / yarns***

3.16 The growth rate in the production of man-made fibres /yarns is projected to be of the same level as that of their consumption. On that basis, the production of man-made fibres / yarns is expected to increase from 2148 million kgs in 2005-06 to 3821 million kgs in 2011-12, registering an overall growth of 10.08 percent during the Eleventh Plan period. The existing installed capacity of man-made fibres / yarns is 2565 million kg as against the projected production of 3821 million kg. Therefore, the existing installed capacity would not be adequate to meet the demand, and additional capacity, especially to manufacture polyester staple fibre and filament yarn should come up during the Eleventh Plan period to meet this demand.

**Table -3.2****Installed capacity vis-à-vis projected production**

(In Mn. Kg.)

<b>Sr. No.</b>	<b>Fibre / Filament Yarn</b>	<b>Installed capacity as on 31-03-06</b>	<b>Projected Production (2011-12)</b>	<b>Surplus / Deficit</b>
	<b>Man-Made Fibres</b>			
(i)	Viscose Staple Fibre	338	294	44
(ii)	Acrylic Staple Fibre	145	211	(-) 66
(iii)	Polyester Staple Fibre	700	1214	(-) 514
(iv)	Poly propylene Staple Fibre	8	3	5
	<b>Sub Total</b>	<b>1191</b>	<b>1722</b>	<b>(-) 531</b>
	<b>Man-Made Filament yarns</b>			
(i)	Polyester Filament Yarn	1253	1973	(-) 720
(ii)	Nylon Filament Yarn	24	48	(-) 24
(iii)	Viscose Filament Yarn	80	59	21
(iv)	Poly propylene Filament Yarn	17	19	(-) 2
	<b>Sub Total</b>	<b>1374</b>	<b>2099</b>	<b>(-) 725</b>
	<b>Grand Total</b>	<b>2565</b>	<b>3821</b>	<b>(-) 1256</b>

3.17 It may be pertinent to emphasise that unless incremental capacity for the production of man-made fibres and yarns is installed and a conducive policy environment is provided, the imports of man-made fibres / yarns will increase to keep pace with the domestic demand.

### **Projected Import & Export**

#### ***Cotton***

3.18 Keeping in view the consumption and production trend in the Eleventh Plan period, the export of cotton is expected to be in the limited range of 5-10 lakh bales, and import also in the range of 5-10 lakh bales particularly of ELS cotton.

#### ***Man-made fibres / yarns***

3.19 The import of man made fibres / yarns, particularly polyester fibre / yarn will increase significantly if additional capacities do not come up to meet the projected demand-supply gap.

## **RECOMMENDATIONS**

3.20 The Indian textiles industry draws its strength primarily from a strong indigenous raw material base. Since, the Indian textiles industry is targeted to grow at the rate of 12 percent in volumetric term during the Eleventh Five Year Plan, it is necessary to ensure the availability of good quality raw materials at reasonable prices. To strengthen the raw material base, the following recommendations are made:

### **Technology Mission on Cotton (TMC)**

3.21 In order to remove the deficiencies in the cotton sector and to place the cotton economy on a sound footing within a limited time frame, the Government had set up the Technology Mission on Cotton (TMC) on 20<sup>th</sup> February 2000. The Mission was intended for a 5-year term commencing from 1999-2000, but it was extended by 3 more years to cover the entire Tenth Plan period ending with 2006-07 (31.03.2007).

3.22 TMC has four Mini Missions. Mini Missions I & II are under the Ministry of Agriculture, whereas Mini Missions III & IV are under the Ministry of Textiles.

#### **Mini Mission –III**

3.23 Main Activity: development of market yards. During the Ninth and Tenth plans the given target of 111 market yards was subsequently revised to 250 market yards. Against this, 211 market yards have already been sanctioned. The estimated project cost of these market yards is Rs. 409.73 crore with the share of Government of India being Rs.208.07 crore. An amount of Rs. 94.07 crore has already been released to various Agriculture Produce Marketing Committees (APMCs) that have developed/are developing their market yards. It is estimated that by the end of Tenth Plan, the approval to a total of 225 APMCs may be accorded, thus achieving a target to the level of 90 percent.

#### **Mini Mission – IV**

3.24 Main Activity: modernization of Ginning & Pressing (G&P) units. The target for Ninth and Tenth Plan was revised to 1000 units during June 2005 to process the increased quantities of cotton produced during recent years. Against this 725 projects have already been approved. The estimated project cost for the modernization of 725 projects is Rs. 969.59 crore, with the share of the Government of India being Rs.166.50 crore. An amount of Rs. 75.24 crore has already been released to various factories that have modernized/are modernizing their units. Another 175 G & P units are expected to be approved by the end of Tenth Five-year plan thus making a total of 900 units, and achieving the target to the level of 90 percent.

3.25 Some of the ginners have also availed benefits under the Technology Upgradation Fund Scheme (TUFS) to modernize their units. There are still other units that had already modernized on their own, before the start of GOI schemes. It is estimated that 1000 units under TMC and another 500 units under TUFS, and those who have done this themselves, will be able to process about 3,25,000 bales of cotton, which is expected to be clean and contamination free. It is expected that this quantity of cotton will not only meet the requirements of Indian mills but there will also be surplus for export.

3.26 Based on past experience, it has been observed that most of the market yards and G & P factories sanctioned under TMC take up their development/ modernization activities during the off-season, i.e. February – September. Thus, it can be expected that the projects sanctioned for the development of market yards and modernization of G & P factories from July to September 2006 will be able to start actual execution of the project only from February 2007 onwards. Often, this gets further extended due to some unavoidable circumstances faced by APMCs/ ginners. On an average, an APMC takes 18-24 months for development of a market yard, and G & P owners about 12-18 months to modernize of their G & P units from the date of sanction of the project.

3.27 The proposals which will be sanctioned during 2006-07 may take another period of 1-2 years from their respective dates of approval complete the project work, and be eligible to receive the TMC share. Further, the remaining 25 market yards and 100 G & P factories may be sanctioned during 2007-08.

3.28 In view of the above, the TMC may be extended for a period of two years i.e. up to 31-03-2009 to enable APMCs and G & P units to complete their projects, and get their subsidy reimbursed. The remaining 25 APMCs and 100 G & P units will also be sanctioned during this period. The fund requirement for this is estimated to be about Rs. 241.35 crore as per the original target and fund requirements.

#### Proposed Plan Outlay

<b>Cotton Technology Mission (Central Plan outlay):</b>			
<b>Mini Mission III</b>			
(i)	2007-08	Rs. 45.35 Crore	
(ii)	2008-09	Rs. 70.00 Crore	<b>Rs.121.35 Crore</b>
(iii)	Contingency	Rs. 6.00 Crore	
<b>Mini Mission IV</b>			
(i)	2007-08	Rs. 50.00 Crore	<b>Rs.120.00 Crore</b>
(ii)	2008-09	Rs. 70.00 Crore	
<b>Total</b>			<b>Rs. 241.35 Crore</b>

### **Man-made fibres / yarns**

3.29 There is urgent need to increase the availability of man-made fibres / yarns at reasonable prices in the country. In the world, the consumption ratio of cotton to non-cotton is 40:60 while in India it is the reverse. The global trade is dominated by man made based products while Indian exports are pre-dominantly cotton based. Thus, there is need to augment the availability of man made fibres / yarns. To encourage the modernization of existing capacity and set up additional capacities in the synthetic sector, the following suggestions are made:

### **Policy Issues**

3.30 A rational, equitable and growth oriented fiscal policy regime for man-made fibres and filament yarns and their raw material needs to be put in place.

3.31 Fiscal duty concessions also need to be provided on machinery for the production of man-made fibres and yarns for export.

### **Technology Upgradation Fund Scheme (TUFS)**

3.32 At present, the entire textiles sector except the segment manufacturing synthetic fibres / yarns is covered under TUFS. To encourage the production of synthetic fibres / yarns, manufacturing of synthetic fibres/yarns should be brought under the purview of TUFS. It is estimated that the synthetic fibres / yarns sector would require about Rs. 8,500 crore for technology upgradation and expansion of existing capacity. In case of non-availability of funds, the manufacturing of high tenacity synthetic fibres / yarns which are required for the production of technical textiles should be covered under TUFS.

### **Institutional Mechanism**

#### **Anti Dumping Duty Cell**

3.33 The availability of man-made filament yarn has been restricted due to the levy of anti dumping duty on all filament yarn. This has occurred primarily on account of the fact that the Directorate General of Anti Dumping and Allied Duties (DGAD) is finalizing his findings without technical experts on the subject, and these findings are made based on the submissions made by the applicants.

3.34 The Anti-Dumping Duty on Nylon filament yarn (NFY/VFY/PFY/POY) is the same for all the deniers whereas the prices of filament yarns vary depending upon

the denier, quality, etc. This is again due to the lack of technical expertise in the DGAD

3.35 Therefore, a '**Technical Advisory Cell**' may be formed in the Office of the Textile Commissioner, comprising of technical experts on textiles from the Ministry of Textiles, IITs, TRAs and the DGAD should consult this Cell on technical aspects of textiles before the final findings are made. This will result in a balanced finding which will not adversely affect the interests of various sectors of the textiles industry.