CHAPTER - 8

WOOL AND WOOLLEN TEXTILES

INTRODUCTION

8.1 Although the woollen textile and clothing industry is relatively small compared to the cotton and man made fibre based textiles and clothing industry, yet the woollen sector plays an important role in linking the rural economy with the manufacturing industry, represented by small, medium & large scale units. The product portfolio is equally divergent from textile intermediates to finished textiles, garments, knitwear, blankets, carpets, and an incipient presence in technical textiles. This industry caters to civil and defence requirements for warmer clothing. India is the 7^{th} largest producer of raw wool accounting for 1.8 percent of the world production. It has about 4.2 percent of the total sheep population, which in the year 2003, was 6.15 crore.

8.2 The Wool Industry is broadly divided between the organized and decentralized sectors:

- **Organized Industry-** (i) Composite Mills (ii) Combing Units (iii) Worsted and Non-Worsted Spinning Units, (iv) Knitwear and Woven Garment units and (v) Machine Made Carpet Manufacturing Units.
- **Decentralized Industry-** (i) Hosiery and Knitting (ii) Powerloom (iii) Hand Knotted Carpets, Drugget, Namadahs and (iv) Independent Dyeing and Processing Houses.

8.3 The industry has the potential to generate employment in far-flung and diverse regions and, at present, provides employment in the organized wool sector to about 12 lakh persons, with an additional 12 lakh persons associated in the sheep rearing and farming sector. Further, there are 3.2 lakh weavers in the carpet sector. In aggregate, the total employment is about 27 lakh people.

- During the year 2004-05, the total wool consumption at industry level in the country was 135 million-kg. comprising of 55 million kg. of domestic wool and 80 million kg. of imported wool.

- The quality of domestic wool is coarse and brittle. It is basically carpet grade wool, mainly used in the spinning of wool and in manufacturing hand made carpets. Indigenous wool has an important role in the national economy: it is rural-based (Sheep breeding), defence oriented (Blankets and Made-ups) and contributes significantly to Export (Carpets). About 80 percent of good quality Indian wool goes into the manufacture of carpets. Of the remaining, 15 percent is very coarse grade, 5 percent is apparel grade but of shorter average fibre length. Rajasthan (44 percent), J&K (13 percent), Karnataka (12 percent) alongwith Gujarat, Uttar Pradesh, Andhra Pradesh, Haryana 23 percent are the major wool producing states in the country.
- The production of fine apparel grade wool is not adequate in the country. A large quantity of wool is imported from Australia, New Zealand, China, Middle East and other countries. Of the total imported 80 million kg. of wool, 47 million kg is apparel grade, and the rest carpet grade.
- The world average for wool productivity has been about 3.5 kg/ sheep/year, while in India average is 0.8 kg/sheep/year.

8.4 Worldwide consumption of wool has remained almost constant at about 15 lakh tones between 1960 to 2002. The share of the wool in the world wide consumption of fiber was 10 percent in 1960, which has declined to a little less than 3 percent in 2002. In the decade ending 2003, worldwide consumption of wool dropped marginally, but steadily, from 16.3 lakh tones to 14.3 lakh tones.

8.5 There are 718 woollen units in the organized sector, and a large number of units in the Small Scale sector. Ludhiana alone accounts for 225-240 units in the decentralized hosiery and shawl sector. The installed capacity of the industry is about 6.04 lakh worsted spindles, and 4.37 non-worsted spindles. Wool combing capacity is around 30 million kg., whereas, synthetic fibre combing capacity is 3.57 million kg. There are approximately 7228 powerlooms in this industry.

PERFORMANCE DURING THE TENTH FIVE YEAR PLAN

Review of Central Wool Development Board Schemes (CWDB)

8.6 The Integrated Wool Improvement Programme (IWIP) with the objectives of Improving wool fiber, and the quality processing of wool was operated by the CWDB during Tenth Five Year Plan.

8.7 The various components of IWIP through which the scheme was being implemented were;

8.7.1 Improvement of wool fiber, includes;

- Breed improvement;
- Product development;
- Provision of quality testing centers, common facility centers for scouring, drying, carding, design development, product diversification, training, etc;
- Improvement and development of specialty fiber such as Angora and Pashmina.

8.7.2 Quality processing of wool, includes;

- Provision for carpet finishing centres and shawl finishing centres;
- Assistance in research and development;
- Technical consultancy services;
- Human Resource Development.

8.8 The CWDB has covered 25.5 lakh sheep and programmes have benefited 55,091 families. Two common facility cum training centres were set-up during the Tenth plan period.

8.9 The CWDB incurred an expenditure of Rs.25.08 crore, against the target of Rs.35.00 crore in implementing the above components of the scheme. The details are at **Appendix - 8.1**. The CWDB has installed wool testing centre at Bikaner and Beawar in Rajasthan to test the wool fiber supplied by growers, merchants and industries. The Board has also implemented 2 R&D projects, and set up 1 Common Facility Centre (CFC).

8.10 The woollen industry could not meet the target for any of its product categories in the first 3 years of the Tenth Plan. The main reasons for this could include the fluctuation of the prices of Australian raw wool, lack of promotion, unfavorable climate, change in fashion trends in favor of cotton, business norms, life style changes, less than active involvement of State Governments, inadequate infrastructure with CWDB and declining significance of the Wool Sector, which have adversely affected the consumption of wool fiber.

Review of Production

8.11 The growth of the production of the woollen items displays mixed trends during the first 3 years of the Tenth Five Year Plan. The trends in some of the items even show stagnation. Hand-made carpets recorded the highest growth, and production increased from 7.5 million sq.mtrs in 2001-02 to 8.0 million sq.mtrs in 2004-05, showing 2.17 percent annual growth.

8.12 There was nominal annual increase in the production of woollen yarn & worsted yarn by 1.0 percent & 0.75 percent, respectively. Woollen/worsted fabrics registered a negative growth of 0.99 percent during the first 3 years of the Tenth plan.

8.13 The growth in Shoddy yarn, Blanket (shoddy and woollen), Shoddy fabrics, Knitted goods and Machine made carpet stagnated. The details are given in **Appendix – 8.2**.

Review of Imports

8.14 During the first four years of the Tenth Five Year Plan, the import of raw wool increased from 73.66 million kg. in 2002-03 to 90.70 million kg. (prov.) in 2005-06. Thus the import of raw wool has almost constantly been increasing & there has been even a shift from fine wool quality to low quality wool imports during the last four years, because of consumer preference for hand tufted carpets in the US & Western markets. A cheap wool import from Middle-East countries is constantly growing and mainly goes into hand tufted carpets mixed with indigenous wool. About 70 percent of the total production of carpets is now hand tufted. Raw wool is mainly imported for value addition. Most value-added products are exported. The import of woollen rags and cotton rags, etc, increased from 52.39 million kg. in 2002-03 to 126.82 million kg. (prov.), in 2005-06.

Review of Exports

8.15 The export of woollen items indicated an increasing trend during the first four years of the Tenth Five Year Plan. It increased from Rs.3597.31 crore in 2002-03 to Rs.4969.02 crore in 2005-06 (April 2005- Jan 2006).

8.16 The Carpet industry exports about 95 percent of its output and earn foreign exchange of about Rs.2500 crore per annum. The break-up of carpet and non- carpet produce in terms of exports is as follows:

Table – 8.1

Exports of woollen carpet and non-carpet items

Rs. crore

Item	2001-02	2002-03	2003-04	2004-05	2005-06
Woollen Yarn, Fabrics, Made-ups *	249	246.43	267.81	313.56	371.21
Readymade Garments	1129.76	1057.09	1285.26	1560.50	1727.06
Carpets	2152.69	2293.79	2617.79	2678.41	2870.75
Total	3531.45	3597.31	4170.86	4551.91	4969.02

Note: * Products made with blend of man-made fibre and 100 percent acrylic not included.

Source: Foreign Trade Statistics of India, DGCI&S, Kolkatta.

SETTING FOR THE ELEVENTH FIVE YEAR PLAN (2007-12)

Policy Environment

8.17 The National Textile Policy 2000 shows the direction in which the development of the Wool Sector must be steered. This emphasizes the development of indigenous wool fibre (carpet graded wool); the promotion of linkages for marketing of wool; attention to pre and post-loom processing facilities, and the simultaneous development of specialty wool fibres, such as angora, pashmina, etc.

Objectives and milestones of the Eleventh Five Year Plan:-

8.18 While detailed targets have been given in the subsequent para namely, ‘Projections for the Eleventh Plan’, the basic objective is to increase domestic production of raw wool by about one and half times of the present level, i.e., reach an annual production level of around 75 to 76 million kg. The productivity per sheep would be increased to about 1.5 kg. per sheep per year as against 0.8 kg. per sheep per year, at present. By the end of the Eleventh Five Year Plan period, the export of wool and woollen goods, including hand made carpets is targeted at Rs.10,000 crore as against Rs.5,600 crore at present. Further employment generation in wool and allied industries would be of the order of 60 lakh as against 27 – 28 lakh at present. In the Technology Mission, while the focus would be on the best carpet - grade wool-producing sheep namely, Magra, Chokla, Nalli, and Bikaneri (Bhiwari), and projects will be sanctioned in areas where these varieties of sheep are numerous, projects for the sheep not producing this grade of wool would continue to be assisted.

ELEVENTH FIVE YEAR PLAN APPROACH AND STRATEGY

8.19 The approach for promotion and growth of the woollen industry during the Eleventh Five Year Plan would be on the following lines;

8.19.1 Mapping of existing and potential wool producing areas in the country. Schemes will be formulated in a focused way, based on local needs and potential in a focused way, to integrate with form 'clusters', with a 'Project' approach.

8.19.2 Augmentation/Focusing only on four or five top quality of Indian wool types which are judged to produce the best carpet wool in the world i.e. Magra (south western part of Bikaner medium of 5" length used for fine carpets), Nali (used for clothing. Medium-fine used for fine carpets approximate length 4"), Bhiwari, Chokhlla or Chapper (fine 4-5" length, used for clothing- south eastern part of Bikaner)

8.19.3 The need of the hour is to develop synergies in various programmes of different Ministries like Agriculture, Animal Husbandry, Rural Development etc. Integrated schemes with essential backward and forward linkages, and the pooling of financial, technical & administrative resources should be integrated to the approach. Areas of Government intervention should be clearly defined between different agencies at the Centre and State level.

8.19.4 There is a need for interventions at the organisational level of breeders and rearers in the form of co-operative societies or self help groups. The breeding and rearing activities will be supplemented with Common Facility Centres for grading and scouring activities, so that the rearer gets a remunerative price for wool in the market. The role of State Wool Boards/Corporations/Directorates and CWDB may be crucial in this regard. Assistance may be provided to farmers co-operatives, societies, self help groups. This should be the focal point in the future and projects should be implemented with a cluster approach.

8.19.5 The marketing of wool is critical but is a weak link in the sector. This has to be strengthened by the intervention of State Wool Boards, Corporations and Federations or through other central organizations, like the Cotton Corporation of India, which have developed some expertise in marketing. Existing assistance from the IWIP needs to be multiplied. Instead of giving any lump sum assistance, there should be project based assistance with clear identifiable objectives.

8.19.6 The processing and finishing of wool products is a weak link which requires huge capital investment. Common infrastructure facilities may be developed by the industry with the assistance from Government. This needs to be taken up at large scale.

8.19.7 Since the consumption of wool world-wide has remained static, it needs to be seen as to how best India can diversify its wool products apart from carpet and garments, to include blended textiles and apparel. The organised sector in the wool industry has to play a crucial role and modernise the industry, with the assistance of TUFS if required. Government can constitute a Product Development Cell with the assistance of private industry to facilitate R&D.

8.19.8 To improve the breed there has to be an import of high breed germplasm. Since past experience shows that the import of live animal is not an easy job, possibilities of import of frozen embryo or frozen semen can be explored. However, in the case of sheep which produce coarse wool, indigenous rams can be used to improve their breed.

8.19.9 Since there is always a disagreement with the forest authorities on the issue of grazing, legislative measures can be taken. In Uttaranchal, Bhutia Rules are in existence, whereby routes are earmarked in forests through which migratory sheep can pass and graze on the nearby forest land. Pasture development will go a long way in providing nutrition to sheep. This could be done by reserving certain portions of land as pasture for sheep.

8.19.10 In order to ensure that shepherds have a greater stake in sheep rearing, some kind of insurance scheme for shepherds should be worked out. Also, since a large number of casualties occur in sheep and small ruminants, insurance for these animals can also be considered. Mini-Mission I as a part of Technology Mission would also take care of health care of sheep in general, and prophylactic care in particular.

8.19.11There is an urgent need for human resource development in respect of shepherds and also development of technical manpower in the industry. This can be done by propagating appropriate messages through short films, and also by formal and informal training programmes at notified institutes.

8.19.12Since processing is the weakest link in the chain, emphasis needs to be laid on measures to improve processing – both pre-loom as well as post loom. The system of grading of wool is virtually absent. This has to be addressed on an urgent basis. In addition to grading, scouring is also a pre-loom process. Modern techniques need to be adopted to get satisfactory results in scouring through setting up Common Facility Centres. Common Facility Centres also need to be set up for finishing which is a post loom process. Finishing for carpets and shawls need to be improved considerably to fetch better market prices for these products.

The Mission Mode

8.20 The integrated development and growth of the Wool and Woollen sector can be achieved through the Mission approach i.e. the Technology Mission on Wool (TMW) on lines similar to the Technology Mission on Cotton (TMC), consisting of 4 Mini- Missions:

- **Mini-Mission-I**- Research and Development of a few chosen coarse wool (i.e. carpet grade wool) fibre breeds only.

  Implementing Agency **:** Ministry of Textiles, through Central wool Development Board, Jodhpur.

  Fund requirement:

Schemes	**Requirement of funds**
A. Continuation of existing 10th Plan Schemes.	
Improvement of Wool Fibre.	
a) Setting up of Extention Centres	Rs.5 crore
b) Setting up of Common Facility Centres	Rs.6 crore
c) Health care @Rs.18 per sheep per annum	Rs.18 crore
d) Breed improvement	Rs.1 crore
	Nutritional supplementation which was there in the 10th Plan has not been included.
Marketing assistance, product development and research and training	Rs.10 crore
B. New Schemes during the 11th Plan	
Sheep Insurance Scheme	Rs.10 crore
	@Rs.25 premium per sheep for 40 lakh sheep expected to be covered during the 11th Plan)
Total	**Rs.50 crore**

- **Mini-Mission-II**- Procurement of coarse wool under Minimum Support Price (MSP) operations by Central Government agencies, to instill confidence in the sheep breeders/wool growers. This will ensure remunerative returns and, thereby increase yield.
- Implementing Agency: Central Government Agency preferably Cotton Corporation of India, to be monitored by the Textiles Commissioner.

Fund Requirement:

A Revolving Fund to be set up to be utilised for the procurement of raw wool, and its sale.	Rs.10 crore
For Market support operations to be undertaken by CCI in order to stabilise wool prices	Rs.5 crore
Total	**Rs.15 crore**

- **Mini-Mission-III**- Development of the decentralised woollen textile industry and the development of the carpet industry.
- Implementing Agency: Ministry of Textiles through Wool Research Association, Thane, Mumbai; Indian Institute of Carpet Technology, Bhadohi, UP; and the Woolmark Company, Delhi under the aegis of the Textiles Commissioner.

<u>Fund Requirement</u>:

Setting up Scouring Plants,	Rs.20 crore
Shearing Centres and	Rs.20 crore
Pre loom facilities.	

Including appropriate R&D support as well as setting up of finishing plants for shawls etc. alongwith industry support.

Technology Upgradation of spinning weaving and processing in the decentralised sector	Rs.75 crore
Total	**Rs.115 crore**

Mini-Mission-IV- Supplementing training facilities (HRD) by devising specific curricula and training infrastructure through the involvement of selected institutes, the Wool Research Association and the Indian Institute of Carpet Technology, Bhadohi, UP for the semi skilled and skilled work force, supervisory categories and technical managers.

Implementing Agency : Ministry of Textiles through WRA, Thane, Mumbai, Indian Institute of Carpet Technology, Bhadohi, UP, selected academic institutions like Guru Nanak Dev University, Amritsar, VJTI Mumbai, Textiles Engineering Institute, DKT's Society, Ichalkaranji, Maharashtra, under the aegis of Textiles Commissioner and the Central Wool Development Board.

<u>Fund requirement</u>:

Approximately Rs.10 crore may be required for funding courses in Wool Research Association and other Institutes.

PROJECTIONS FOR THE ELEVENTH PLAN

8.21 In the context of the emerging domestic and international scenario (post quota regime) and the needs of the growing population, and keeping in view the production trends in the past, the targets for the Eleventh Plan have been projected as follows:

Target for indigenous wool production

8.22 Indigenous wool is mostly suitable only for carpet manufacturing and its production has remained stagnant at around 50-55 million kg., with no improvement in productivity and quality. Inspite of continuous efforts, there has been no success in developing good quality apparel grade wool indigenously. Therefore, instead of wasting further effort and resources in that direction, concerted efforts would be made during the Eleventh Five Year Plan to concentrate on the development of carpet grade wool, with special emphasis on the improvement of the quality and yield through cross breeding.

Table – 8.2

Targets for consumption of fibre and production of woollen items during the Eleventh Five Year Plan

Sl. No	Items	Unit	Achievements 2004-05 (Actual)	Assumed Growth Rate during Eleventh Plan (percent)	Terminal year of the Eleventh Plan (2011-12)
1.	Apparel Grade Raw Wool (Clean Consumption)	Mn.kg	47.00	10	75.69
2.	Carpet grade raw wool (consumption)	Mn.kg	55.00	18.75	129.87
3.	Wool Tops	Mn.kg	29.00	4	35.28
4.	Worsted Yarn	Mn.kg	45.00	5	57.43
5.	Worsted/Woollen fabrics	Mn.mtrs	66.00	20	164.23
6.	Woollen Yarn	Mn.kg	34.00	3	39.41
7.	Woollen/Synthetic/Cotton rags	Mn.kg	105.69	5	135.00
8.	Shoddy Yarn	Mn.kg	26.00	3	30.14
9.	Shoddy Fabrics	Mn.mtrs	18.00	3	20.86
10.	Shoddy/Woollen blankets	Mn.pcs	12.00	3	13.92

11.	RMG (Knitwear/wovenwear and Goods)	Mn.kg	13.00	25	39.67
12.	Hand Made Carpets	Mn.sq.mtrs	08.00	5	10.21
13.	Machine Made Carpets	Mn.sq.mtrs	00.50	2	0.552

8.23 The above target can be achieved, partly by modernization i.e. adding and replacing worsted/woollen/shoddy yarn spindles with modernized spindles and looms (new & second hand). However, investment in modernization of spindles/looms/chemical processing machinery will take place subject to policy reforms i.e. the creation of infrastructure facilities, the introduction of the Technology Mission on Wool, and the creation on image building and market development using design consultants from India and overseas, providing capital subsidy of 20 percent of the cost of machinery installed for a SSI unit, undertaking modernization under TUFS, continuing TUFS in general, attracting large FDI by simplifying the multi-layered tax structure and moving to a single goods and service tax (GST) system, labour reforms in the area of Contract Labour and extended working hours; labour being on the concurrent list, engaging in various FTA's/PTA's with simultaneous implementation of internal fiscal reforms,

RECOMMENDATIONS

Programmes and Schemes for the Eleventh Plan

8.24 The Tenth Plan Schemes of the Central Wool Development Board will continue in the Eleventh Plan after being adequately restructured. However, once the Technology Mission on Wool is launched, they will be merged into Mini-Mission I.

8.25 The Technology Mission on Wool (TMW) is proposed to be launched during the Eleventh Five Year Plan for the integrated development of the different segments of the wool industry.

8.26 Till the time TMW is approved, the Central Wool Development Board will continue to administer the existing schemes and programmes.

Fiscal Levy Structure

8.27 Various categories of raw material in the form of wool waste, fine animal hair, synthetic/woolen rags and machinery face uneven levels of import duty. Machinery for the woollen sector is not manufactured in the country. It is therefore imperative that the fiscal levy on import of the above items is rationalized to enhance growth.

8.28 The following are the summarized proposed outlay for the Eleventh Plan:

Proposed XIth Plan Outlay

Mini Mission	Scope	Outlay (Rs. crore)
I	Development on wool fibre	50.00
II	Procurement of selected coarse wool use for carpet industry.	15.00
III	Development of the decentralised woollen textile industry and carpet industry.	115.00
IV	H .R.D	10.00
	Total	**190.00**