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WOOL: HOLISTIC UPGRADE FOR WARMER FUTURE

Though India ranks third in the world in sheep stock, it has not yet shined both in the domestic as well as the external wool market. Hence efforts are needed to upgrade this sector without any delay.

India's name has always been synonymous with its cotton textile industry. But few know about the deep roots of the thriving woollen industry way back from the era of Indian royalty, which has been a patron of exquisite work of arts; from finely embroidered *jamvar* shawls, to pure wool garments and carpets.

Wool is the textile fibre obtained from sheep and other animals in-

cluding goat, camel and rabbit. These animal fibres are processed to make fine products like suitings and knitted garments, shawls and dress materials.

Manufacturing fine woollen textile products in India has been the forte of artisans and handloom weavers right from Kashmir in the north to various manufacturing centres in Rajasthan, Punjab and Uttar Pradesh for centuries.

World production

Australia is the leading producer of wool, which is mostly from Merino sheep. China is the second-largest producer of wool followed by New Zealand. The total production of wool in the world during 2009 was 2,044,270 metric tonnes (refer Table I).

Organic wool is becoming more and more popular globally. This wool

is very limited in supply and much of it comes from Australia and New Zealand. This wool is environmentally preferable to petroleum-based nylon as a raw material for carpets.

Indian scenario

The woollen industry in India is small in size as compared to cotton and synthetic fibre-based industries. This industry provides employment and source of substance to about one million people, mostly belonging to low-income group. Its expansion, particularly in *khadi*, handloom and carpet segments, will create more and more employment opportunities in the future.

India has about 44 descript sheep breeds spread over a wide range of environmental conditions. The Indian sheep breeds produce wool differing in fineness. This wool is mainly utilised for the production of hand-knitted, tufted and handloom-woven carpets. During 2010-11, India produced 43.3 million kilogram of raw wool. Out of this, about 10 per cent was apparel-grade, 70 per cent carpet-grade and 20 per cent coarse-grade. The annual growth of wool production is marginal and has remained static for last ten years. The estimated production of wool since 1950-51 up to 2010-11 is given in Table II.

As far as the production of wool is concerned, the country can be divided into four agro-climatic regions. The sheep population is more or less spread equally in north-western parts of the country covering the states of Rajasthan, Gujarat, Punjab, Haryana and southern peninsular region consisting of Andhra Pradesh, Maharashtra, Tamil Nadu and Karnataka.

However, wool production is more in north-western region than the south. Also the wool produced in north-western region is finer than that produced in southern re-

gion. State-wise estimates of wool production are given in Table III. It is clear from the table that Rajasthan ranks first followed by Jammu and Kashmir, Karnataka and Andhra Pradesh.

Speciality hair fibres

Angora rabbit hair, *pashmina* and yak wool are the main speciality hair fibres found in India. The fineness of *angora* rabbit hair ranges between 12 and 14 microns. These rabbits are reared in Himachal Pradesh. *Pashmina* or cashmere is obtained from *changthangi* and *chenger* breed goats that are famous for their soft, fine and warm commercial natural animal fibre. The details about animal fibres viz, quality and products, are given in Table IV.

Marketing of wool

Wool marketing in India is in the hands of private wool merchants and traders. The producers rarely take it to the markets. A major portion of wool is purchased by village merchants. The commis-

sion agents of wool market sell on behalf of village merchants or purchase it from the producers. The normal practice of wool producers is to sell their wool per animal basis well before the shearing season by taking money in advance.

Since the availability of animal fibres except sheep wool is fluctuating, their marketing is not organised. These are sold and used locally. The price has also been fluctuating over the years.

Utilisation of wool in India

Of the total wool produced in India, about 10 million kg is used in the *khadi* sector and other village-

Table II
Wool Production in India During 1950-51 to 2010-11

Year	Production (million kg)
1950-51	27.5
1955-56	27.5
1960-61	28.1
1968-69	29.8
1973-74	30.1
1979-80	30.9
1983-84	36.1
1989-90	41.7
1993-94	39.9
1998-99	46.9
2000-2001	48.4
2001-02	49.5
2002-03	50.5
2003-04	48.5
2004-05	44.6
2005-06	44.9
2006-07	45.1
2007-08	44.0
2008-09	42.9
2009-10	43.2
2010-11	43.3

Source: www.dahd.nic

Table I
World Production of Wool in Top 10 Countries in 2009

Country	Production (metric tonnes)
Australia	370,601
China	364,002
New Zealand	179,242
UK	65,393
Argentina	61,491
Morocco	55,029
Sudan	54,668
Russia	54,668
Syrian Arabic Republic	53,011
Pakistan	41,540
Total (including others)	2,044,270

Source: FAO STAT-United Nations

based industries for manufacturing different products by hand spinning and weaving. About 8 million kg of raw wool is used in the organised sector for manufacturing shawls and knit wears in Ludhiana and Amritsar. The remaining is utilised by the carpet sector. So as to meet the domestic demand, India imports about 100 million kg from New Zealand, Italy, Turkey, Saudi Ara-

bia, Argentina and other countries. However, the major import is from New Zealand, which supplies wool in scoured stage.

Production centres of woollen goods

The major carpet yarn production centres are Bikaner (where about 70-80 per cent of production takes place) followed by Panipat, Bhilwara, Kekri, Beawar and Bhadohi. Most of the yarn produced in different centres is sent in scoured stage to Bhadohi where it is dyed in desired shades.

The Indian carpet industry employs about 1.5 million workers spread over a number of states. The four major regions making hard-knitted carpets are Jammu & Kashmir, Jaipur, Agra, Gwalior, Bhadohi-Mirzapur belt and Warrangal. However, India's major carpet production is at Bhadohi-Mirzapur belt and Jaipur, amounting to about 80 per cent.

Imports and exports

India imports about 100 million kg of

carpet wool from New Zealand and other countries. Apart from this, the country imports wool, fine or coarse animal hair, horse hair yarn and woven fabrics. The total import of these during 2009-10 was 74,774 tonnes valued at Rs 11753.5 million. On the other hand, India exported products worth Rs 1886.035 million during the same period as can be observed from Table V.

Future of the industry

Though India ranks third in the world in sheep stock, it has not yet shined both in the domestic as well as the external wool market. Hence efforts are needed to upgrade this sector without any delay. The following measures will be useful:

1. There is a need to establish organised marketing system. At present, the available wool marketing system is unscientific, which is completely against the interest of wool growers and has stunted production of wool over the years.

2. Effective market intervention schemes are required. To ensure remunerative price to wool growers, protect them against exploitation by the middlemen, and make available good-quality and well-graded raw material to the wool industry, it is imperative that effective market intervention is made by government agencies.

3. There is a need to increase the share of speciality hair.

4. Steps should be taken to promote the growth of angora, pashmina and yak fibre processing industry for shawl manufacturing. This growth needs to be enhanced by diversified utilisation of knit-wear and garment sectors.

5. Research and development activities related to sheep and rabbit production should be carried out. Also, there is a need to develop technologies for the utilisation of

Table III

State-wise Estimates of Wool Production During 2007-08 to 2009-10

('000 kg)

States	2007-08	2008-09	2009-10
Andhra Pradesh	4407	4507	4605
Arunachal Pradesh	12	15	16
Bihar	241	250	260
Chhattisgarh	245	247	249
Gujarat	2996	2857	2919
Haryana	1121	1200	1246
Himachal Pradesh	1607	1618	1614
Jammu & Kashmir	7100	7133	7300
Jharkhand	147	149	136
Karnataka	5631	7137	7165
Madhya Pradesh	401	381	370
Maharashtra	1677	1707	1726
Punjab	435	451	485
Rajasthan	15,451	12,664	12,529
Sikkim	1	1	1
Tamil Nadu	25	25	31
Uttar Pradesh	1481	1503	1523
Uttarakhand	360	368	353
West Bengal	680	687	697
Total (including others)	44,021	42,901	43,224

Source: State Animal Husbandry departments, www.dehd.nic

Table IV

Quality and Products of Animal Fibres

Fibre	Source	Fineness (microns)	Product
Wool	Sheep	22 – 60	Carpets, blankets, felts, shirting, suiting, etc
Pashmina	Cashmere goat	10 – 15	Shawls and knit wears
Rabbit hair	Angora rabbit	10 – 14	Shawls and knit wears
Yak fibre	Yak	15 – 25	Shawls and knit wears

Table V
Import and Export of Wool and Other Products During 2009-10

(Quantity in tonnes, value in Rs million)

Items	Imports		Exports	
	Quantity	Value	Quantity	Value
Wool not carded or combed	68,260	10,007.7	622.82	66.09
Fine coarse animal hair	96	101.1	15.83	7.54
Waste of wool/fine coarse	1545	66.8	485.52	47.28
Garneted stock of wool	9	0.9	312.75	25.33
Wool/fine course animal hair	594	274.4	4824.26	1660.16
Yarn of carded wool not put up for retail sale	4	33.3	776.99	198.19
Yarn of combed wool not put up for retail sale	199	123.1	2871.87	1318.56
Yarn of fine animal hairs not put up for retail sales	2	8.7	776.10	162.29
Yarn of wool or fine animal hair put up for retail sales	166	35.8	44.62	16.14
Yarn of coarse animal hair	1	0.5	0.33	0.17
Woven fabrics of carded wool or of carded fine animal hair	3212	861.8	2562.63	635.39
Woven fabrics of combed wool/fine animal hair	429	203.0	5448.29	1473.79
Woven fabrics of coarse animal hair	216	36.4	18.34	4.97
Animal hair, horse hair yarn and woven fabrics, etc	74,774	11,753.5	18,860.35	5615.87

Source: DGCI & S Kolkata, Ministry of Animal Husbandry, www.dahd.nic



Woolen sweaters

animal fibre and other products.

4. The established carpet wool breeds of the country are getting diluted due to intermixing with heavy-bodied breeds to meet farmer's requirement of higher body weight and mutation yield. Therefore incentive schemes for higher wool yield should be introduced to maintain pure-breed flocks.

5. Stress should be given to increase the fibre production per animal rather than increasing the number of animals.

6. It is difficult to increase wool production in present land utilisation pattern. The thrust should be on improving the quality so that the wool can be used for quality carpet and other product manufacture.

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