

INDIA

COUNTRY STATEMENT ON COTTON

64th PLENARY MEETING OF THE INTERNATIONAL COTTON ADVISORY COMMITTEE ST. GEORGE'S HALL, LIVERPOOL, UK 25-29 SEPTEMBER 2005

1. Introduction

Cotton, the “**white gold**” continues to enjoy a pre-eminent and the most favoured fibre status among the Indian textile mills, as the major raw material for the textile industry despite the inroads made by Polyester and its blends. Cotton accounts for about 58 per cent of total fibre consumption in India. Cotton has multiple uses, high economic value and strong forward and backward linkages with the textile and agro-input industries.

Cotton, alongwith the cotton based industries and ancillary activities; employs around 60 million people. India is also the only country in the world that grows not only the four cultivated species of cotton but also their intra-and-inter-specific hybrids on a commercial scale. Thus, cotton is the principal raw material for domestic textile industry comprising of 1566 spinning mills and 223 composite mills with an installed capacity of 34.24 million spindles (Spinning + Composite), 3,85,395 open-End rotors (Spinning + Composite) and 1,05,280 Looms (composite + Weaving) in the organized sector plus another 1161 small scale spinning units with 3.22 million spindles. Cotton, as the raw material to the large textile industry, contributes about 5% to the GDP and is the largest foreign exchange earner for the country. Hence, growth and development of cotton and cotton industry has a vital bearing on the overall development of the Indian economy.

2. Area under cotton cultivation

Area under cotton cultivation at around 9 million hectares in the country is the highest in the world. The area under cotton cultivation in cotton season 2004-05 (October-September) was 8.9 million hectares as against 7.6 million hectares during 2003-04 cotton season i.e. an increase of about 17%. Out of the total area, about 35% area is irrigated and the rest is rainfed.

3. Indian cotton varieties

India has the distinction of growing all the four cultivated species of cotton viz., *G.arboreum* and *G.herbaceum* (called Desi/Asian cottons), *G.hirsutum* (American upland types) and *G.barbadense* (Egyptian type) as also hybrid cottons. India produces large number of cotton varieties and hybrids. Though the number of varieties in cultivation exceeds seventy-five, 98% of the production is contributed by about 25 varieties only.

4. Cotton production and productivity

Cotton is produced in India in three zones viz., Northern zone comprising the States of Punjab, Haryana and Rajasthan, Central zone comprising the States of Maharashtra, Madhya Pradesh and Gujarat and Southern zone comprising the States of Andhra Pradesh, Karnataka and Tamil Nadu. Besides these nine States, cotton cultivation has gained momentum in the State of Orissa. Cotton production during 2004-05 is estimated 3.94 million metric tons (equivalent to 23.20 million bales of 170 kgs each) showing an increase of over 31% over 2003-04. The cotton yield during the cotton year 2004-05 has been 440 kg per hectare as against 394 kgs per hectare during cotton year 2003-04. The improvement in cotton production during 2004-05 has mainly been due to favourable agro-climatic conditions throughout the cotton belt during sowing and growth, with negligible pest incidences as also due various measures adopted by the Government of India through

Technology Mission on Cotton, especially Mini Mission I and II by way research of better quality seeds and transfer of technology from research level to field level. The increase in production has also been due to increase in area under Bt cotton. The State-wise production of cotton during 2002-03, 2003-04 and 2004-05 cotton years (October-September) are as under:

	2004-05		2003-04		2002-03	
	Million bales	Million Metric Tons	Million Bales	Million Metric Tons	Million Bales	Million Metric Tons
	170 kgs	Tons	170 kgs	Tons	170 kgs	tons
Punjab	1.65	0.28	1.10	0.19	0.75	0.13
Haryana	1.50	0.26	1.15	0.20	0.88	0.15
Rajasthan	1.05	0.18	0.85	0.14	0.50	0.09
North total	4.20	0.71	3.10	0.53	2.13	0.36
Gujarat	6.20	1.05	5.00	0.85	3.05	0.52
Maharashtra	5.20	0.88	3.10	0.53	2.60	0.44
Madhya Pradesh	1.60	0.27	1.95	0.33	1.80	0.31
Central total	13.00	2.21	10.05	1.71	7.45	1.27
Andhra Pradesh	3.25	0.55	2.60	0.44	1.98	0.34
Karnataka	0.90	0.15	0.40	0.07	0.50	0.09
Tamil Nadu	0.55	0.09	0.35	0.06	0.30	0.05
South Total	4.70	0.80	3.35	0.57	2.78	0.47
Others	0.10	0.02	0.10	0.02	0.10	0.02
Total	22.00	3.74	16.60	2.82	12.45	2.12
Loose Lint	1.20	0.20	1.10	0.19	1.15	0.20
Grand Total	23.20	3.94	17.70	3.01	13.60	2.31

5. Availability of cotton during 2004-05

The production of cotton during 2004-05 was higher at 3.94 million metric tons (23.20 million bales) due to a number of factors mentioned earlier. With the carry over stock of 0.36 million metric tons (2.10 million bales) from the previous year and imports of 0.10 million tons (0.60 million bales), the total availability of cotton during cotton season 2004-05 was 4.40 million metric ton (25.90 million bales), which was higher than the available stock of 3.54 million Metric tons (20.82 million bales) in the previous cotton season.

6. Consumption of cotton

The mill consumption of cotton (both organised and small scale spinning units) during 2004-05 has gone up and is placed at 3.15 million tons (18.50

million bales) as against 2.78 million metric tons (16.34 million bales) during the previous season.

7. Non-mill consumption

The non-mill consumption of cotton in 2004-05 has increased to 0.22 million metric tons (1.30 million bales) as against 0.18 million metric tons (1.06 million bales) during the previous year. The total consumption of cotton during 2004-05 was 3.37 million metric tons (19.88 million bales) as against 2.96 million metric tons (17.40 million bales) during 2003-04.

8. Export & Import of cotton

As a part of measure to boost cotton trade, the Government of India had liberalized raw cotton exports from July 2001, dispensing with the system of allocation of cotton export quota in favour of different agencies and obtaining certification of registration from Government. During the year 2004-05, the Country's exports are estimated at 0.20 million MT (1.20 million bales of 170 kgs each) including 0.05 million MT (0.29 million bales of 170 kgs) by the Cotton Corporation of India, a marketing agency of Government of India.

Imports of cotton into India are free from April 1994. Thus, the textile mills in the country are at liberty to import cotton as per their requirements. However, at present import of cotton attracts customs duty of 10 per cent. The imports during the cotton season 2004-05 are estimated at 0.10 million MT (0.60 million bales of 170 kgs) as against 0.12 million metric tons (0.72 million bales of 170 kgs) during the previous year.

The details of exports and imports of cotton during last three years are as follows:

				1 bale = 170 kgs	
EXPORT		IMPORT			
MILLION	MILLION	MILLION	MILLION		

	MILLION TONS	MILLION BALES	MILLION TONS	MILLION BALES
2002-03	0.01	0.08	0.30	1.77
2003-04	0.23	1.33	0.12	0.72

9. Cotton Balance Sheet

The Cotton Balance Sheet drawn by Cotton Advisory Board (CAB) in its meeting held on 22nd March 2005 is given as under:

	2004-05		2003-04		2002-03	
	In	Million	In	Million	In	Million
	Million bales	Metric tons	Million bales	Metric tons	Million bales	Metric tons
Opening stock	2.10	0.36	2.40	0.41	2.40	0.41
Crop size	23.20	3.94	17.70	3.01	17.70	3.01
Imports	0.60	0.10	0.72	0.12	0.72	0.12
Total Availability	25.90	4.40	20.82	3.54	20.82	3.54
Mill consumption	16.80	2.86	15.04	2.56	15.04	2.56
Small mill consumption	1.70	0.29	1.30	0.22	1.30	0.22
Non-Mill consumption	1.30	0.22	1.06	0.18	1.06	0.18
Total consumption	19.80	3.37	17.40	2.96	17.40	2.96
Exports	1.20	0.20	1.33	0.23	1.33	0.23
Total disappearance	21.00	3.57	18.72	3.18	18.72	3.18
Carry Forward	4.90	0.83	2.10	0.36	2.10	0.36

Source: Cotton Advisory Board

10. Price trend of cotton during 2004-05:

During the cotton season 2004-05, the domestic prices of both kapas (seed cotton) and cotton had been lower as compared to previous year mainly due to record cotton production in the country, sluggish demand for yarn and made-ups as also due to integration of domestic cotton economy with global cotton economy. The opening cotton prices, except long staple DCH-32 and short staple Bengal Desi had been lower by Rs.700/- to Rs.3800/- per candy (4% to 17%) i.e. 2 to 11 cents per lb. Since beginning, the cotton

prices. except extra long staple DCH-32 and short staple Bengal Desi, had been ruling easy. In the second week of February 2005, the cotton prices had been at the lowest level. Till February 2005 the cotton prices dropped by 21% to 33% over the opening prices of October 2004. From the first week of March 2005, the cotton prices improved by Rs. 1000/- to Rs.2000/- per candy spot i.e. 3 to 6 US Cents per lb. Thereafter, again the prices had been ruling easy continuously. The volatility and uncertainty in international prices directly influenced domestic cotton prices. With the expiry of MFA in January 2005, the Indian cotton prices are now fully integrated with the international cotton prices and during the year the impact on the domestic cotton prices was clearly visible as per the price data given below:

2003-04 season									
Variety	J-34 (MED)		H-4 (LONG)		S-6 (LONG)		DCH-32 (ELS)		Conversion Factor
	Rs.	US Cents	Rs.	US Cents	Rs.	US Cents	Rs.	US Cents	
Oct.	20245	56.31	22291	62.00	22755	63.29	29000	80.66	359.54
Nov	20765	56.14	22265	60.20	23078	62.40	30709	83.03	369.86
Dec	20348	57.10	21274	59.70	22570	63.34	31291	87.81	356.33
Jan	21867	61.37	22613	63.46	23813	66.83	32371	90.85	356.33
Feb	22022	62.01	22917	64.53	23872	67.22	32111	90.42	355.15
Mar	20800	59.96	21945	63.26	23323	67.23	30795	88.77	346.92
Apr	21320	60.96	22170	63.39	23555	67.35	30500	87.21	349.74
May	21780	61.48	22170	62.58	23450	66.19	30500	86.09	354.29
Jun	21438	59.61	22121	61.51	23542	65.46	30500	84.81	359.62
Jul	21568	59.31	22364	61.50	23584	64.86	30500	83.88	363.62
Aug	21495	59.18	22143	60.96	23335	64.24	30500	83.97	363.23
Sept	20455	56.33	21395	58.92	22375	61.61	30432	83.80	363.15
Avg	21175	59.12	22139	61.82	23271	64.98	30767	85.91	358.15

2004-05 season									
Variety	J-34 (MED)		H-4 (LONG)		S-6 (LONG)		DCH-32 (ELS)		Conversion Factor
	Rs.	US Cents	Rs.	US Cents	Rs.	US Cents	Rs.	US Cents	
Oct.	15629	43.54	17690	49.29	17910	49.90	29333	81.73	358.92
Nov	15381	44.46	17733	51.25	18343	53.02	28257	81.67	345.98
Dec	13964	40.11	15448	44.37	16268	46.73	28648	82.29	348.13
Jan	14005	40.79	15345	44.70	16236	47.29	28477	82.95	343.31
Feb	13895	40.52	14643	42.70	15905	46.39	29881	87.14	342.89
Mar	14692	42.80	15028	43.77	16384	47.72	31180	90.82	343.31
Apr	14557	42.45	15852	46.23	16681	48.65	31500	91.86	342.90
May	15286	44.80	15732	46.11	16391	48.04	31500	92.32	341.20
Jun	15630	45.77	15765	46.17	16700	48.91	32283	94.54	341.47
Jul	15700	46.01	15870	46.51	16895	49.52	32425	95.03	341.20
Aug	15527	#DIV/0!	15764		16809		31927		

11. Technology Mission on Cotton:

The launching of Technology Mission on Cotton in February 2000 continuously aims at improving the quality and productivity of cotton in a Mission mode manner. The Mission consists of four Mini Missions focusing on research and development on cotton, dissemination of technology to the farmers, improvement of marketing infrastructure and modernization of ginning and pressing sector. Simultaneously, workshops, seminars and public meetings are also being organised to maximize the mission impact by creating awareness among the cotton growers and to motivate them to follow the Best Management Practices for improving quality of cotton and reducing the level of contamination.

There has been considerable progress during the last three years under the Technology Mission on Cotton launched by Government of India in February 2000. Some of the salient features are:

(i) **Mini Mission I**

Several varieties/hybrids satisfying the quality norms of Indian Textile Industry have been developed and released for commercial cultivation. Besides, three Bt. cotton hybrids developed by Mahyco Monsanto were released for commercial cultivation after clearance from Genetic Engineering Approval Committee (GEAC) in 2002. During 2005-06 season, the Government of India has released further six varieties for sowing in Northern States. The area under Bt cotton in the country has been continuously rising. Development of resistance to biotic factors (diseases & pests) through introgression of potential genes from wild species of cotton is in progress. Several farm-worthy cotton production technologies such as fertigation, farm-yard manure application, application

of micro-nutrients, etc., have shown to restore the actual genetic potential in terms of productivity and fibre quality.

(ii) **Mini Mission II**

Under the Integrated Cotton Development Programme, the objectives of distribution of large quantity of certified seeds have been achieved to a great extent. The various schemes being implemented under this Mini Mission are for transfer of technology in terms of pest management, watershed managements and other related measures to increase yield per hectare and reduce cost of cultivation. The impact of these activities is reflected in substantially reduced consumption of pesticides with consequent reduction in cost of cultivation and better profitability from cotton farming. Also there is perceptible increase in awareness of Integrated Pest Management amongst the farmers and reduction in number of varieties.

(iii) **Mini Mission III**

Under this Mini Mission, new market yards are being developed and existing market yards of cotton are being improved with basic infrastructure facilities with a view to avert cotton contamination in market yards and provide a platform to the cotton producers for orderly marketing of their produce at competitive prices.

(iv) **Mini Mission IV**

Under this Mini Mission, 488 projects have been taken up for setting up of modernized ginning and pressing factories out of total target of 1000 projects. There has been considerable reduction in trash and contamination in both market yards and

ginning and pressing factories and many such modernized factories have reported receiving adequate premiums for their cotton from mill buyers. This has resulted in providing cleaner cotton to the textile mills. This is a continuous process and by the end of year 2006-07, more than 75% of the cotton is likely to be processed in such modernized factories resulting in significant improvement in processing of cotton for the industry.

12. Efforts to implement instrument based quality Evaluation System:

Over the last couple of years, it has been reported that more and more mills are installing HVI testing machines in their own mill premises for testing of cotton fibre parameters. Even the new ginning and pressing factories which are coming up in different States mostly with the help and guidance of Technology Mission on Cotton launched by the Government of India, are willing to install such testing machines in their ginning factories. The Cotton Corporation of India has also followed the same trend and has already installed HVI machines. Thus, there is a clear trend of finalizing the bargain as well as selection of cotton bales on the basis of test parameters by most of the progressive mills. The ginning and pressing factories as well as private traders have also started quoting the selling prices indicating the staple length and other parameters of varieties/grade as against the earlier practice of mentioning only the variety.

13. Integrated Cotton Cultivation (ICC) & Front Line Demonstrations:

i) Integrated Cotton Cultivation (ICC):

With a view to benefit the cotton farming community on the one hand by way of making available quality inputs like seeds, pesticides etc., for producing quality cotton and to enable the

user industry (i.e. textile mills) to obtain desired quality of cotton on the other, the Government of India has promoted Integrated Cotton Cultivation (Contract Farming), which has the involvement of corporate sector not only in extension services but also in making available quality inputs like seeds, fertilizers etc., to the farmers to improve productivity and quality of Indian cotton. At the instance of the Government of India, the Cotton Corporation of India had taken initiative in promoting Contract Farming in the States of Haryana, Maharashtra, Gujarat, Andhra Pradesh, Orissa, Madhya Pradesh and Karnataka during 2003-04 and 2004-05 by identifying villages/cluster of villages and by forming associations of farmers. This arrangement is now being followed by many textile mills and other organisations. The area under contract farming during 2005-06 has increased manifold

ii) Front Line Demonstrations under MM-II of TMC

During the 10th Plan, the Government of India, besides, States, ICAR, Krishi Vigyan Kendras, State Agricultural Universities and various other organisations has identified CCI, as the Nodal Agency for implementing Front Line Demonstrations (FLDs) under Mini Mission II of Technology Mission on Cotton. Front Line Demonstrations will be conducted for transfer of modern/improved cotton production and protection technologies including farm implements/machinery as well as improved cotton varieties and hybrids. Demonstrations of high yielding varieties and hybrids suited for various agro-climatic conditions, approved transgenic cotton, integrated nutrient management, integrated pest management, use of bio-fertilisers etc. have helped the farmers to increase yields and reduce the

use of pesticides and production cost significantly. Apart from this, the best feature of FLD is the feedback for cotton scientists from cotton farmers and rapid spread of technology.

14 Outlook for Future

With the efforts of Mini Mission I, the research activity is gaining momentum for development of new seed varieties having better yields, better fibre characteristics and pest resistance. Under Mini Mission II, various schemes, including Front Line Demonstrations have been undertaken to transfer the technology from the research farm level to the farm level for increasing the yield per hectare and reducing the cost of cultivation. The market yards and ginning & pressing factories are being modernised and improved under Mini Missions III and IV. All these steps are likely to result in higher productivity, production and improvement in quality of cotton. As a result of these developments, the cotton production in the country has reached a record level during cotton season 2004-05 and is likely to rise steadily in the coming years. During the coming cotton season 2005-06, the productivity and production in the country is again likely to show improvement over the previous cotton season. Further the basic fibre parameters have also shown improvements as a result of efforts made by Department of Agriculture, Government of India with enhanced research efforts. With better prices, clean and contamination free cotton, it is expected that the user textile industry in the country shall be able to compete globally for their end products.
