

INDIA

COUNTRY STATEMENT ON COTTON

65th PLENARY MEETING OF THE INTERNATIONAL COTTON ADVISORY COMMITTEE AT GOIANIA, BRAZIL FROM 10TH TO 15TH SEPTEMBER 2006

1. Introduction

Cotton is a major cash crop in India. As a raw material for the textile industry, cotton contributes significantly to the agricultural and industrial economics of India and exerts considerable influence on India's economy. Cotton accounts for more than 75 per cent of the annual fibre consumption in the spinning mills in India and about 58 per cent of total fibre consumption in the Textile Sector in India. It engages millions of farmers, while another about 60 million people depend on activities relating to cotton cultivation, cotton trade and its processing for their livelihood. India is 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. Though the number of varieties in cotton cultivation exceeds seventy-five, nearly 98 per cent of the production is contributed by about twenty-five varieties only. Thus, cotton is the principal raw material for domestic textile industry comprising of 1603 spinning mills and 208 composite mills with an installed capacity of 35.36 million spindles (Spinning + Composite), 0.43 million open-End rotors (Spinning + Composite) and 0.091 million Looms (composite + Weaving) in the organized sector plus another 1196 small scale spinning units with 3.86 million spindles plus 0.15 million rotors as on 31st July 2006. The Textile Industry of which the cotton is the predominant raw material contribute about 4 per cent to the GDP of the country 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 2005-06 (October-September) was 8.87 million hectares as against 8.79 million hectares during 2004-05 cotton season i.e. an increase of about 1%. 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. During 2005-06, the country harvested bumper cotton production for the second consecutive year. The cotton production during 2005-06 is estimated 4.15 million metric tons (equivalent to 24.40 million bales of 170 kgs each) showing a marginal increase over cotton production of 4.13 million metric tons (24.30 million bales) during 2004-05. The cotton yield during the year 2005-06 has been more or less at par with 467 kg per hectare as against 470 kgs per hectare during cotton year 2004-05. Though the agro-climatic conditions during the cotton season had not been much favourable as compared to last year, but as a result of various measures adopted by the Government of India through Technology Mission on Cotton, especially Mini Mission I and II by way of research and development of better quality seeds and transfer of technology from research level to field level had resulted into increased

availability of good quality seeds besides reduction in costs of seeds and lesser use of pesticides, which enabled the farmers to sustain continued interest in cotton cultivation. The increase in production has also been possible due to increase in area under Bt cotton. The State-wise production of cotton during 2003-04, 2004-05 and 2005-06 cotton years (October-September) are as under:

	2005-06		2004-05		2003-04	
	Million	Million	Million	Million	Million	Million
	bales	Metric	Bales	Metric	Bales	Metric
	170 kgs	Tons	170 kgs	Tons	170 kgs	tons
Punjab	2.00	0.34	1.65	0.28	1.04	0.18
Haryana	1.30	0.22	1.65	0.28	1.15	0.20
Rajasthan	1.10	0.19	1.00	0.17	0.92	0.16
North total	4.40	0.75	4.30	0.73	3.10	0.53
Gujarat	8.90	1.51	7.30	1.24	5.00	0.85
Maharashtra	3.60	0.61	5.20	0.88	3.10	0.53
Madhya Pradesh	1.80	0.31	1.60	0.27	1.97	0.33
Central total	14.30	2.43	14.10	2.40	10.07	1.71
Andhra Pradesh	3.20	0.54	3.30	0.56	2.74	0.47
Karnataka	0.65	0.11	0.80	0.14	0.42	0.07
Tamil Nadu	0.55	0.09	0.50	0.09	0.38	0.06
South Total	4.40	0.74	4.60	0.78	3.54	0.60
Others	0.10	0.02	0.10	0.02	0.10	0.02
Total	23.20	3.94	23.10	3.93	16.80	2.86
Loose Lint	1.20	0.20	1.20	0.20	1.10	0.19
Grand Total	24.40	4.15	24.30	4.13	17.90	3.04

5. Availability of cotton during 2005-06

The production of cotton during 2005-06 was higher for the second consecutive year at 4.15 million metric tons (24.40 million bales) due to a number of factors mentioned earlier. With the carry over stock of 1.22 million metric tons (7.20 million bales) from the previous year and imports of 0.07 million tons (0.40 million bales), the total availability of cotton during cotton season 2005-06 was 5.44 million metric ton (32.00 million bales), which was higher than the available stock of 4.69 million Metric tons (27.62 million bales) in the previous cotton season.

6. Consumption of cotton rises by 12 per cent

The mill consumption of cotton (both organized and small scale spinning units) during 2005-06 has gone up by about 12 per cent and is placed at 3.43 million tons

(20.20 million bales) as against 3.06 million metric tons (18.00 million bales) during the year 2004-05.

7. Non-mill consumption

The non-mill consumption of cotton in 2005-06 has marginally increased to 0.26 million metric tons (1.50 million bales) as against 0.24 million metric tons (1.40 million bales) during the previous year. The total consumption of cotton during 2005-06 was 3.69 million metric tons (21.70 million bales) as against 3.30 million metric tons (19.40 million bales) during 2004-05.

8. Export & Import of cotton

As a part of measures to boost cotton trade, the Government of India had liberalized raw cotton exports since July 2001, dispensing with the system of allocation of cotton export quota in favour of different agencies and obtaining certification of registration from Government. Presently, exports of cotton from the country are under Open General Licence (OGL). The salient feature of cotton season 2005-06 has been the record cotton exports from the country. During the year 2005-06, the Country's exports are placed at 0.80 million MT (4.70 million bales of 170 kgs each) including 0.05 million MT (0.31 million bales of 170 kgs) by the Cotton Corporation of India, a marketing agency of Government of India.

Imports of cotton into India are under Open General Licence (OGL) since 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 a customs duty of 10 per cent. The imports during the cotton season 2005-06 are estimated at 0.07 million MT (0.40 million bales of 170 kgs) as against 0.20 million metric tons (1.20 million bales of 170 kgs) during the previous year.

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

	1 bale = 170 kgs			
	EXPORT		IMPORT	
	MILLION TONS	MILLION BALES	MILLION TONS	MILLION BALES
2002-03	0.01	0.08	0.30	1.77
2003-04	0.21	1.21	0.12	0.72

2004-05	0.17	1.00	0.20	1.20
2005-06	0.80	4.70	0.07	0.40

9. Cotton Balance Sheet

The Cotton Balance Sheet drawn by Cotton Advisory Board (CAB) in its meeting held on 1st September 2006 is given as under:

	2005-06		2004-05		2003-04	
	In	Million	In	Million	In	Million
	Million	Metric	Million	Metric	Million	Metric
	Bales	tons	bales	Tons	Bales	Tons
Opening stock	7.20	1.22	2.10	0.36	2.40	0.41
Crop size	24.40	4.15	24.30	4.13	17.90	3.04
Imports	0.40	0.07	1.20	0.20	0.72	0.12
Total Availability	32.00	5.44	27.60	4.69	21.02	3.57
Mill consumption	18.20	3.09	16.30	2.77	15.04	2.56
Small mill consumption	2.00	0.34	1.70	0.29	1.30	0.22
Non-Mill consumption	1.50	0.26	1.40	0.24	1.37	0.23
Total consumption	21.70	3.69	19.40	3.30	17.71	3.01
Exports	4.70	0.80	1.00	0.17	1.21	0.21
Total disappearance	26.40	4.49	20.40	3.47	18.92	3.22
Carry Forward	5.60	0.95	7.20	1.22	2.10	0.36

Source: Cotton Advisory Board

10. Price trend of cotton during 2005-06:

During the cotton season 2005-06, due to expectation of a higher cotton production for the second consecutive year, subdued demand for cotton from the textile mills and large carry over of stocks, the opening kapas (raw cotton) prices in all the cotton growing States had ruled at MSP level, except for superior long and extra long staple varieties. In Northern States of Punjab, Haryana and Rajasthan the opening kapas prices had been ruling at MSP level and continued so for more than a month till they firmed up and ruled above MSP from the middle of November 2005 onwards. The

opening kapas prices in Gujarat were again at MSP level followed by the same trend in the adjoining States of Maharashtra and Madhya Pradesh. However, unlike previous season, when kapas prices of major varieties ruled at MSP throughout the season, during 2005-06 season, the prices of higher-end grades of certain varieties ruled above the MSP level. In the peak of the season, especially from the third week of December 2005 to second week of January 2006, kapas prices in many varieties firmed up and ruled above the MSP but again declined and touched the MSP level from the last week of January, 2006 and continued so upto end of March, 2006 except in Northern State of Punjab & Haryana. Thereafter the kapas prices for most of the qualities of FAQ grade, excepting short staple Jayadhar, ruled above the MSP level during April, 2006 and afterwards. 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:

2005-06 season									
Variety	J-34(MED)		H-4(LONG)		S-6(LONG)		DCH-32(ELS)		Conver sion Factor
	Rs.	US Cents	Rs.	US Cents	Rs.	US Cents	Rs.	US Cents	
Oct.	14739	42.08	16174	46.18	17487	49.93	31500	89.94	350.23
Nov	15060	42.00	16635	46.39	17235	48.06	33900	94.53	358.60
Dec	15842	44.22	17300	48.29	17942	50.08	42979	119.96	358.27
Jan	15464	44.41	17214	49.43	18505	53.14	45409	130.40	348.22
Feb	15095	43.44	16771	48.27	18195	52.36	42929	123.55	347.47
Mar	15104	43.32	16643	47.74	18117	51.97	40130	115.11	348.63
Apr	16074	45.57	16984	48.15	18484	52.40	41895	118.78	352.72
May	16100	45.25	16404	46.10	17913	50.34	42000	118.04	355.81
Jun	16458	45.59	16429	45.51	17963	49.76	42000	116.34	361.01
Jul	16791	46.12	17070	46.89	18491	50.79	41435	113.82	364.04
Aug	17305	47.44	18300	50.17	19876	54.49	40143	110.05	364.78
Yearly Avg	15821	44.51	16902	47.55	18201	51.21	40393	113.64	355.43

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 organized 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. The Government of India has so far released twenty-two Bt varieties for commercial cultivation. 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. Under this Mini Mission against targeted 250 market yards, 211 market yards have been sanctioned out of which 100 market yards reported completion.

(iv) **Mini Mission IV**

Under this Mini Mission, 725 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. 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 results 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 Punjab, Haryana, Maharashtra, Andhra Pradesh, Madhya Pradesh and Karnataka during 2003-04 and 2004-05 by identifying villages/cluster of villages and by forming associations of farmers. During cotton season 2005-06, the Corporation had undertaken contract-farming project in 20,030 hectares in all the cotton growing States. The Corporation has taken up the project in 35,000 hectares area during the ensuing 2006-07 cotton season. This arrangement is now being followed by many textile mills and other organisations.

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 production 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-fertilizers 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 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 modernized 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, during the current cotton season 2005-06, the country harvested higher cotton production for the second consecutive year at 4.15 million metric tons as against 4.13 million metric tons during the previous year. During the coming cotton season 2006-07, the productivity and production in the country is further likely to show improvement over the previous cotton season. Also the basic fibre parameters as well as quality of ginning and pressing have shown tremendous 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, the user textile industry in the country is in a better position to compete globally for their end products.