



भारतीय कपास निगम लिमिटेड  
THE COTTON CORPORATION OF INDIA LIMITED  
(MINISTRY OF TEXTILES, GOVT. OF INDIA)

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**BEST PRACTICES IN COLLECTION OF  
COTTON STATISTICS IN INDIA**

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A PRESENTATION BY:  
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### COTTON SECTOR

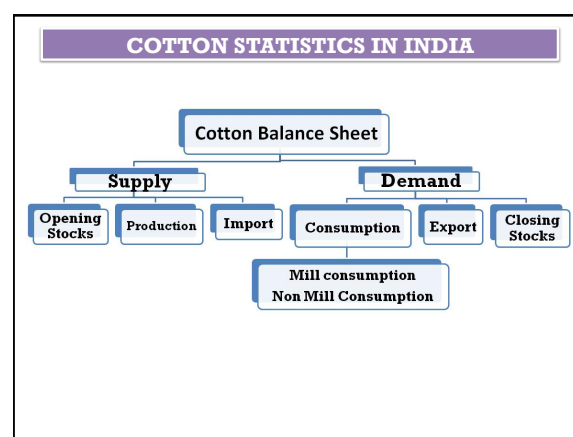
- Cotton is one of the principal crops and major raw materials for the textile industry.
- Currently, India is the largest producer of cotton.
- India's Man Made fibre to Cotton consumption ratio is 40:60, whereas globally its vice-versa.
- Due to prominent role of Indian Textile Industry in the National Economy, Cotton & Textiles statistics assume important role in planning and policy decisions.

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### COLLECTION OF COTTON STATISTICS

- India has an established system of collection of cotton statistics.
- Periodical data on production, consumption, imports and exports of textile items are maintained and are used in planning and policy formulation

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### ORGANIZATIONS INVOLVED IN COLLECTING COTTON PRODUCTION STATISTICS

**National Level**

- Directorate of Economics & Statistics (DES), Ministry of Agriculture (Main Coordinating Agency)

**State Level**

- State Agricultural Statistics Authorities (SASA)
- State Revenue Departments
- State Directorate of Economics & Statistics (DES)

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### METHODOLOGY FOR COMPUTING COTTON PRODUCTION STATISTICS

- The **Directorate of Economics and Statistics (DES), Ministry of Agriculture** at the Centre is the nodal agency for coordination and compilation of agricultural statistics including cotton at all India level.
- Agriculture, being in concurrent list, the **State Agricultural Statistics Authorities (SASA)**, play a predominant role in collection and compilation of crop statistics.

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#### ASCERTAINMENT OF AREA UNDER COTTON

- Cotton **crop area** figures are compiled annually on the basis of field inspection/survey.
- Statistics on area under cotton crop is collected under '**Timely Reporting Scheme**' (TRS) by the officials of state revenue authorities.
- **Crop yield** is estimated on the basis of sample survey approach.

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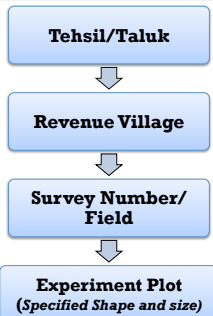
#### PROCESS OF WORKING OUT PRODUCTION ESTIMATES

- The estimates of yield rates are obtained on the basis of scientifically designed **crop cutting experiments** (CCE) under the scheme of 'General Crop Estimation Surveys' (GCES) of Directorate Economics & Statistics (DES), Ministry of Agriculture.
- CCE is based on scientifically designed survey methodology in which 68 crop (52 food and 16 non food) are covered in 22 states and 4 union territories. Every year around 5,00,000 experiments are conducted with the help of state revenue and agricultural staff. About **18500 CCE** are conducted for cotton crop in kharif season.

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#### SAMPLING DESIGN FOR 'GENERAL CROP ESTIMATION SURVEYS' (GCES)

Multistage stratified random sampling with tehsils/taluks (revenue subdivision under Districts of States) as strata, villages within a stratum as primary sampling unit, fields within a village as second stage sampling units and experimental plot of specified size within a field as the ultimate sampling unit.



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#### Sampling Design for 'General Crop Estimation Surveys' (GCES) Contd...

- The villages in each stratum (tehsil/taluk) are divided into 5 independent non-overlapping sets, each containing  $1/5^{\text{th}}$  of the total number of villages. One set of villages is selected for crop inspection on priority basis immediately after sowing season is completed.
- The sampled villages are selected in such a way that the entire stratum is covered over a period of 5 years.

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#### Sampling Design for 'General Crop Estimation Surveys' (GCES) Contd...

- Districts are divided into major and minor depending upon the area under the crop and the average size of district in the State.
- The number of experiments allotted to a district is distributed among the strata within the district roughly in proportion to the area under the crop in the stratum.

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#### Sampling Design for 'General Crop Estimation Surveys' (GCES) Contd...

- After determination of the sample size of villages in each stratum, the villages are randomly selected from the list of villages for which inspection has been completed by simple random sampling without replacement (SRSWOR).
- Crop cutting experiments (CCE) on each crop are generally conducted on two randomly located survey/sub-survey and completed by simple random sampling without replacement (numbers from each selected village, therefore the number of villages to be selected for CES is half of the number of CCE planned for the crop.<sup>12</sup>

## Sampling Design for 'General Crop Estimation Surveys' (GCES) Contd...

- The estimates on area under cotton and yield are used to arrive at production data at the state level.
- The national level figures are derived from the aggregated state level estimates on cotton production.

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## CALENDAR FOR RELEASE OF ESTIMATES

Estimate	Periodicity
First Advance Estimate (Kharif)	September of Agricultural Year (July-June)
Second Advance Estimate (Kharif)	January of Agricultural Year (July-June)
Third Advance Estimates	March of Agricultural Year (July-June)
Fourth Advance Estimates	June/July
Final Estimates	December/January of the following agricultural year.

Thus, India has a full-proof system of estimation of production data which plays key role in planning and forecasting purposes.

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## DATA ON COTTON CONSUMPTION BY MILLS

- Office of The Textile Commissioner, Ministry of Textiles, is a repository of data related to textile sector.
- Textile Commissioner's office has a dedicated Management Information System (MIS) for compiling textile statistics.
- Monthly data on mill-wise cotton consumption is made available in public domain.

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## NON MILL CONSUMPTION

- It includes consumption by segment like Khadi Village Industries, Surgical cotton units, Mattress making units, Households, Temples.
- Ahmedabad Textile Industries Research's Association (ATIRA) conducted study on the consumption of cotton by non-textile segment during 2010.
- Non Textile use of Cotton is estimated to be about 3% of the cotton production

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## DATA ON EXPORTS &amp; IMPORTS

- Directorate General of Commercial Intelligence and Statistics (DGCIS) under Ministry of Commerce and Industry, Govt. of India provides monthly data on exports and imports.
- This is from the authentic data released by Govt. of India agency on trade statistics.

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## DATA ON COTTON STOCKS

- Mill-wise month-wise data on stocks of cotton held by the Mills is available through Statistical returns.
- The data on stocks with other stakeholders like Cotton Corporation of India is finalized in CAB to arrive at the final stock figures..

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### COTTON ADVISORY BOARD & ITS METHODOLOGY

- In order to draw cotton balance sheet by deciding total acreage under cotton production, consumption, Export and Import in the country, **Cotton Advisory Board (CAB)** has been constituted.
- CAB is represented by various stakeholders including representatives of Federal Government, State Government, Cotton Farmers, Consuming Textile Mills, G&P factories, Cotton Trade including institutions like Cotton Corporation of India (CCI).

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### Cotton Advisory Board Contd...

- CAB meets periodically to assess the Cotton situation and deliberate in detail with the stakeholders.
- After taking into account demand and supply side factors and various factors including assessment made by stakeholders along with the estimates from Ministry of Agriculture, CAB arrives at production estimates from time to time.
- This holistic approach helps to overcome the shortcomings in estimation of cotton production listed in the previous slide.

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### DATA SOURCES FOR CAB

Area &amp; Production

- By State Agricultural Department

Mill Consumption

- Compiled by Textile Commissioner's Office from Monthly Statistical Returns from mills

Exports &amp; Imports

- Data from Directorate General of Commercial Intelligence & Statistics, Kolkata

Stock

- Compiled by Textile Commissioner's Office from Monthly Statistical Returns from mills and other stakeholders

Non-Textile Consumption

- Determined by Fixed Percentage of Mill Consumption based on survey conducted by Ahmedabad Textile Industry's Research Association (ATIRA).

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### AREA UNDER COTTON CULTIVATION

Cotton Year (Oct-Sept)	Area (In Million Hectares)
2005-06	8.68
2006-07	9.14
2007-08	9.41
2008-09	9.41
2009-10	10.31
2010-11	11.24
2011-12	12.18
2012-13	11.98
2013-14	11.96
2014-15	13.08
2015-16	11.76

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### COTTON BALANCE SHEET (IN MMT) (AS PER CAB)

Cotton Year →	2011-12	2012-13	2013-14	2014-15 (P) *	2015-16 (P) *
<b>SUPPLY</b>					
Opening Stock	0.78	0.68	0.68	0.56	0.88
Crop	6.24	6.29	6.77	6.46	6.21
Import	0.13	0.25	0.20	0.24	0.20
<b>TOTAL SUPPLY</b>	<b>7.14</b>	<b>7.22</b>	<b>7.64</b>	<b>7.27</b>	<b>7.29</b>
<b>DEMAND</b>					
Mill Consumption	3.80	4.28	4.56	4.74	4.83
S.S.I Consumption	0.38	0.40	0.43	0.45	0.48
Non Textile Consumption	0.09	0.13	0.11	0.22	0.19
Export	2.20	1.72	1.99	0.98	1.16
<b>TOTAL DEMAND</b>	<b>6.46</b>	<b>6.54</b>	<b>7.08</b>	<b>6.38</b>	<b>6.65</b>
Closing Stock.	0.68	0.68	0.56	0.88	0.65

\*P: Provisional

All Figures in Million MT

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*Thank you*

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