

# COTTON CONCLAVE 2018

Driving for Solutions to Agri & Textile Industry's  
Burning problems

**IMC**  
Chamber of Commerce and Industry

Organized by

with



## Purpose of White paper:

### DISCOVERING COMMODITY ECONOMICS - COTTON

This White Paper aims at exploring economics of Cotton and find quick-fix, calibrated and sustainable solutions to the burning issues of cotton supply value chain with **the consent of All stake-holders (farmers to brands) and policy makers (Govt. officials)** by

#### 1) Doubling farmers' income

For the purpose of

- Creating opportunities and jobs,
- Enhancing country's GDP
- Ensuring cotton textile industry of uninterrupted supply of quality cotton.

#### 2) Reducing grave disparity in Cotton Ginning and Spinning

For the purpose of

- Eliminating adulteration, contamination & malpractices in Cotton.
- Ensuring profits of SMEs especially ginners & spinners.
- Identifying and enhancing the derived demand of cotton so that it creates a pull effect on all value added products benefitting the entire cotton supply chain.

# COTTON CONCLAVE 2018

Driving for Solutions to Agri & Textile Industry's  
Burning problems

Organized by

**IMC**  
Chamber of Commerce and Industry

with

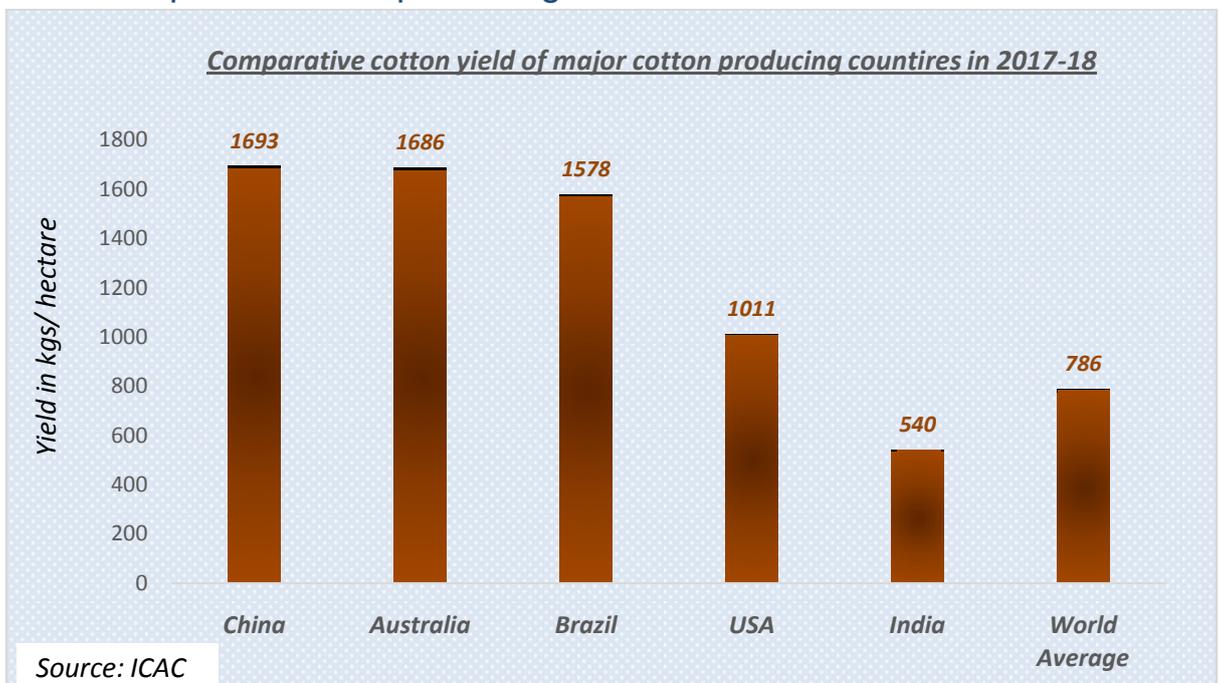


From India Since 1903

## The Challenge:

Although India is the largest producer of cotton (nearly 25% of world share) and the second largest consumer and exporter of cotton, Indian cotton market faces the 2 main challenges of **Low yield** and **Contamination** such that

- Many farmers, ginners, exporters and spinners are facing survival issues.
- Yields in India are lower by about 200-300% compared to those of other competitor cotton producing countries.



# COTTON CONCLAVE 2018

Driving for Solutions to Agri & Textile Industry's  
Burning problems

Organized by

## IMC

Chamber of Commerce and Industry

with



From India Since 1903

- 70% of Indian cotton farmers spend more than what they earn as lower yields and crop losses due to diseases arising out of long duration crops have put severe limitations on the income of cotton farmers

## BASIC DIFFERENCES IN PRODUCTION PRACTICES

The following aspects related to hybrid cotton are unique to India and differ completely with many advanced countries as listed in the table below.

	India	Australia, Brazil, Turkey, China, USA and Mexico
Cultivars	Hybrids	Pure-line varieties
<b>Crop duration: days</b>	<b>160-240</b>	<b>140-160</b>
Flowering-fruiting duration: days	80-160	60-100
Plant Population /ha	11,000	>110,000
Bolls/plant	20-100	7-9
Number of pickings	3-5	1
Sowing and picking	Manual	Mechanized
Laborers employed per hectare	100 to 120	1-10
Harvest index (seed-cotton v/s plant-bio-mass)	0.2-0.4	0.4-1.0
<b>Lint % in seed cotton (Ginning%)</b>	<b>32-34</b>	<b>38-44</b>
Plant architecture	Bushy	Erect-compact
Plants in meter row	1 to 2	10
Seed Rate Kg/ha	2	12
Seed production	cumbersome	Easy
Pink bollworm infestation in long duration crop	High	low
Non-Bt seeds in bolls	present	absent
Bollworm resistance risk	High	low
Area Lakh ha	119	224
<b>Average lint yield Kg/ha</b>	<b>500</b>	<b>&gt;1500</b>
Cultivars	Hybrids	Pure-line varieties

# COTTON CONCLAVE 2018

Driving for Solutions to Agri & Textile Industry's  
Burning problems

**IMC**  
Chamber of Commerce and Industry

Organized by

with



From India Since 1903

- Indian cotton brand has been heavily eroding due to contamination, adulteration and contract defaults such that Indian cotton is **discounted by at least 5 cents/ lbs (Rs 1000/bale)** to competitive origins like US, W.Africa, Australia, etc. leading to an **annual loss of nearly USD 1 billion to the Indian cotton industry, drastically restricting the income of cotton farmers and profits of textile industry.**

The below chart shows the market price difference of Indian cotton brand (?) Gujarat Shankar-6 against our competitor countries:

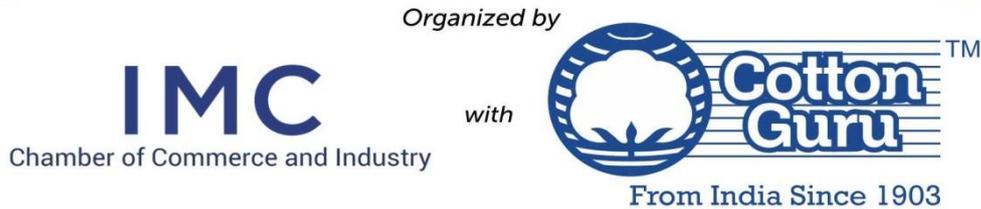
INDIA	US	W.AFRICA	AUSTRALIA	AVERAGE DIFFERENCE	1 USD=INR	LOSS/BALE (INR)	INDIA CROP (CRORE BALES)	TOTAL LOSS (CRORES Rs)
80.5	83.5	85	87	5	65	1000	3.6	3600

\*All prices in USC/lbs

Unless all the stake holders and policy makers make a consolidated effort with holistic long term approach, growth of cotton textile industry and farmers' incomes are at a great risk.

# COTTON CONCLAVE 2018

Driving for Solutions to Agri & Textile Industry's  
Burning problems



## Practical & Sustainable Solutions and ways to meet the challenges:

**Cotton Conclave 2018**, has made a humble attempt at bringing All the stake holders (farmers, seed companies, fertilizer companies, ginners, traders, exporters, spinners, brands, research scientists, investors, etc) and the policy makers (State and Central Govt.) on a Round Table. The solutions that have been endorsed by the by the **Amrut Manthan** (heavy discussion, debate and decision) of All the of the above, is mentioned below:

### **Issue No.1) Doubling farmers' income:**

- 1. Agriculture by Design:** Agriculture of all crops( food, fuel, cotton) must be by design rather than by default.The Textile industry must give an advance layout of its annual cotton requirement so that the farmers can plan their crop.
- 2. White Revolution 2.0:** Yield depends mainly on 3 things: Seeds, Soil and Weather.
  - **Seeds:**
    - (1)Urgently introduce limited varieties of certified seeds suitable to Indian agro climatic conditions.
    - (2)Short term duration (150 days) of Bt variety seeds instead of hybrids/long term (180 days), especially in rainfed areas.
    - (3)Seeds with higher percentage of ginning out-turn(atleast 40 instead of current 34).
    - (4) Seed distribution through CCI so as to ensure authenticity and availability for the farmers.
    - (5) Rating of Seed companies by professional audit and farmers' feedback. Incentives for R& D must be given based on above ratings.

# COTTON CONCLAVE 2018

Driving for Solutions to Agri & Textile Industry's  
Burning problems

Organized by

**IMC**  
Chamber of Commerce and Industry

with



(6) Incentives to develop seed matching the requirements of Indian textile industry in terms of cotton quantity and quality (staple length, strength, etc.).

➤ **Soil:**

- (1) Remedial action on soil health card reports.
- (2) Farmers counseling for crop rotation and using organic manure to enhance soil fertility.

➤ **Weather:**

- (1) Timely weather forecast reaching remotest places in India.
- (2) Increase direct Subsidies on drip Irrigation.
- (3) Water conservation - Deepening rivers and recharging of tube wells by rain water harvesting for multiple crops/year.

**3. Introduce TMC-2:** TMC must be reintroduced involving cotton farming in it to improve the quality of Indian cotton with less contamination and trash.

**4. Technology:**

- **Promote use of mechanized cotton planter and harvester since hand picking costs about 25% of the total expense.**
- Provide subsidized power sources using renewable means like solar and wind to ensure uninterrupted supply for farming.

**5. Public Private Partnership (PPP):** Encouraging consolidated contract farming with Government as the facilitator and regulator. Encourage farmer support as an CSR activity.

# COTTON CONCLAVE 2018

Driving for Solutions to Agri & Textile Industry's  
Burning problems



**6. Marketing Linkages:** Building marketing linkages between producers, processors and consumers by engaging private companies so as to generate better remuneration to farmers, ginners and spinners.

**7. Revamp APMC:** Utilise full potential of APMCs as

- Centres of excellence with testing facilities for soil health, cotton fibre analysis, ginning out-turn and oil content in seed.
- Farmer training centres.
- Data collection centres.

**8. Promote Farmers Producers Organizations (FPO)** for better access to investment, technology, inputs and markets.

**9. Crop Insurance and Risk management:** The biggest risk to farmer is uncertainty of crop size, quality, cost and price. Effective tools and training must be imparted to mitigate the above risks.

**10. Incentives and subsidies on cost effective value addition** of cotton/ seeds/ stalks promoting agri-SMEs in villages.

# COTTON CONCLAVE 2018

Driving for Solutions to Agri & Textile Industry's  
Burning problems



## Issue No. 2) Reducing grave disparity in Ginning and spinning

### Mission: SWACHH COTTON ABHIYAN

- 1) Coloured cement and fertilizer bags** so as to eliminate HDPE/PP contamination which is the cause of great pain, cost and loss to the spinners, ginners and ultimately the farmers.
- 2) Improve traceability and transparency** in Bale identification system by re-introduction and mandate of Press Mark system in Ginning factories. Strict regulation or Act must be initiated to control contamination and adulteration.
- 3) Updated and timely data management** by official declaration of export, import figures of Cotton and value added products.
- 4) Better seed management: Improve seeds** to get a better Ginning out-turn. Promote export of seed and seed cake for better realisation to the ginners. Incentivise industries striving for value addition of cotton by-products like cotton linter, biomass, packaging material, cellulose extraction, etc.
- 5) Mandatorily increase the percentage of pre-shipment testing** to atleast 5% from the currently dismal 2%, targeting 100% in the next few years. US cotton gets a premium of atleast 5 USC/lbs due to
- 6) Promote Branding of Cotton as 'Made in India'** to generate better value for the producers, processors and consumers.

# COTTON CONCLAVE 2018

Driving for Solutions to Agri & Textile Industry's  
Burning problems

**IMC**  
Chamber of Commerce and Industry

Organized by

with



From India Since 1903

## Conclusion:

Indian cotton has made remarkable advancement during 2003 and 2009 but the yield has stagnated and quality has deteriorated in the last few years. **India is losing more than 1 billion US dollars in value terms against the least contaminated growths.** This is the main reason for decrease in the farmers' income and disparity amongst cotton ginners and spinners, mainly SMEs.

It is high time we discover and utilise the true potential of cotton and value added products such that we identify and enhance their derived demand.

Indian cotton textile industry has the potential to scale new heights and we can achieve both the targets of Doubling Farmers' income and Textile turnover of USD 300 billion in the next few years by initiating the 2 missions of

### **1. White Revolution 2.0:** To address

- Quantity: Planned production with Increased yield levels,
- Quality : Industry specific quality with reduced contamination levels,
- Cost : Minimise the cost of production and processing by use of cost-effective technology,

### **2. Swachh Cotton Abhiyan:**

Increase **value** of cotton and value added products with more transparency, traceability and integrity adopting bale identification system, mandatory Press Mark and at least 5% testing of pre-shipped cotton. It will benefit not only Ginners and farmers but also the entire cotton Value chain of Indian Cotton Textile industry.

**Indian farmers & processors can generate a premium of over 5% if these solutions are implemented with immediate effect.**

# COTTON CONCLAVE 2018

Driving for Solutions to Agri & Textile Industry's  
Burning problems

**IMC**  
Chamber of Commerce and Industry

Organized by

with



## Addendum:

### Issue No.1) Doubling farmers' income:

**1. Agriculture by Design:** Agriculture of all crops( food, fuel, cotton) must be by design rather than by default. It is a normal farmer's tendency to grow what has been sold better in the previous year which leads to supply surplus and losses. The Textile industry must give an advance layout of its annual cotton requirement in terms of quantity, quality and geographical preferences so that the farmers can plan their crop.

- There is an urgent need to improve cotton seed technology such that we initiate a White Revolution 2.0. Limited varieties of best quality short duration certified seeds suitable to Indian agro climatic conditions with higher percentage of ginning out-turn (atleast 40 instead of current 34) and must be distributed through CCI so as to ensure authenticity and availability for the farmers. Rating of Seed companies by professional audit and farmers' feedback. Incentives for R& D must be given based on above ratings. Seed companies may also be incentivised to develop seeds that match the requirements of Indian textile industry in terms of cotton quantity and quality (staple length, strength, etc.).
- **Soil:** Soil health card reports of various agriculture zones must be studied by experts thereby providing simplified and cost effective remedial solutions which must be implemented urgently. Farmers must be counseled for crop rotation and use of organic manure so as to enhance the fertility of the soil.

# COTTON CONCLAVE 2018

Driving for Solutions to Agri & Textile Industry's  
Burning problems

Organized by

## IMC

Chamber of Commerce and Industry

with



From India Since 1903

Govt. must provide basic elements which supplement the farmer's traditional lifestyle along with his surrounding ecosystem. One of them can be providing cattle in order to produce organic manure and generate a second source of income.

- **Weather:** Climate change is one of the major causes of lossto the farmers across the world. This can be partially combated by-

Timely weather forecast reaching remotest places in India.

Increase Subsidies on drip Irrigation with uninterrupted and subsidized power for effective usage.

Water conservation - Deepening rivers and recharging of tube wells by rain water harvesting. This will help the farmers take 2-3 crops a year thereby enhancing his income.

**2. Introduce TMC-2:** TMC must be reintroduced involving cotton farming in it. This will be helpful to improve the quality of Indian cotton with less contamination and trash. Cotton farming is an integral part of the cotton textile supply and it must be accepted as such. It must be included in the Textile Ministry as

1) Indian Textile industry is predominantly dependent on cotton. Any change in crop or quality has a very significant effect on the Textile industry.

2) Unlike Polyester (which is a very small portion of all petroleum products), 100% of lint cotton is converted into yarn and fabric. So, the farmer is equally dependent on the Textile industry.

# COTTON CONCLAVE 2018

Driving for Solutions to Agri & Textile Industry's  
Burning problems

Organized by

## IMC

Chamber of Commerce and Industry

with



From India Since 1903

### 3. Technology:

- **Promote use of mechanized cotton planter and harvester since hand picking costs about 25% of the total expense.**
- Provide subsidized power sources using renewable means like solar and wind to ensure uninterrupted supply for farming.
- Encourage shared logistics within a village or region to cut down fixed costs and ensure better access to market place.
- Increase the use of technical textiles in cotton farming so as to control disease spread, ensure better monitoring and increase crop yield.
- Promote precision agriculture with user friendly GPS technology.
- Providing pathways (mobile applications, helpline numbers etc.) to ensure that weather forecast reaches smallest of the farmers on a real-time basis.

### 7. Revamp APMC for maximum utility:

- Convert all the APMCs to centres of excellence with testing facilities for soil health, cotton fibre analysis, ginning out-turn and oil content in seed. This will ensure price appreciation for better quality of cotton and seeds.
- Farmer training centres must be started in all big APMCs with an adequate Govt. budget for farmer training, nominating an audit agency for periodic monitoring of such programs to ensure good agricultural practices, seed identification and effective disease management.
- APMCs can be utilized to collect real time data about sowing, kapas arrivals and expected crop. Such data can be stored and analysed in a centralized system and available to the Textile industry and the Government at all times.