PRESENTATION BY
Shri Suresh Kotak
CHAIRMAN | KOTAK COMMODITIES
DIMENSIONAL DELIBERATIONS
PAST – PRESENT – FUTURE

- **COMPREHENDING**
  Tracing the evolutionary journey of cotton: understanding its remarkable resurgence.

- **REFLECTING**
  Analyzing factors behind cotton's decline and competitive challenges.

- **DELIBERATING**
  Exploring sustainable pathways for cotton: integrating science, technology, and practical approaches.

- **STRENGTHENING**
  Overcoming challenges to enhance cotton's competitiveness through strategic remedy of sustainability, circularity, resource conservation, for cotton rejuvenation.

- **FOCUSING**
  Embracing cotton as a climate-positive champion: carbon utilization and sequestration.

- **NURTURING**
  Soil resource health through carbon enrichment: boosting productivity and environmental benefits of cotton.
DIMENSIONAL DELIBERATIONS
PAST – PRESENT – FUTURE

ROLE OF COTTON AS...

- GUIDE TO
  TRANSFORMATIVE, RESILIENT, COTTON FUTURE
- PROPOUNENT OF
  SUSTAINABLE RESOURCE SAVING & CIRCULAR PRACTICES
- PROMOTER OF
  CARBON UTILIZATION & REDUCED GHG EMISSIONS
- CREATOR OF
  ENVIRONMENT FRIENDLY EFFECTIVE VALUE CHAIN
- CHAMPION OF
  SUSTAINABILITY
- SOURCE OF
  LIVELIHOOD / EMPLOYMENT FOR FARMERS
- CATALYST FOR
  PRODUCTIVE EFFICIENT SUPPLY CHAIN
- CONFRONTOR OF
  CONSUMPTION / DEMAND CHALLENGES

SUSTAINABILITY OF COTTON SEARCH LIGHTING

(source: www.icac.org)
Evolutionary Journey of Cotton
AS A GLOBAL FIBRE

COTTON’S SURGE : DECLINE : RESURGENCE

A

Exemplifies how man converted a wild fiber into domesticated useable fabric and apparels.

B

Civilizational Cotton stirred the world, shaped industries, built empires, caused revolutions. Spun network of producer, consumers, traders, added utilities/values and created supply and demand chain.

C

The cotton scientist of the world, continuously innovated and developed this fiber into multiple products for use and utilization.

PRESERVE THE PAST
ACT IN THE PRESENT
CREATE THE FUTURE

C K PRAHLAD

www.icac.org

COTTON RESURGENCE
THROUGH A SUSTAINABLE VALUE CHAIN

EVOCATIVE DEVELOPMENT OF COTTON

The cotton scientist of the world, continuously innovated and developed this fiber into multiple products for use and utilization.

81st Plenary Meeting of International Cotton Advisory Council
2nd - 5th December, 2023 | Jio Convention Centre | Mumbai, INDIA
COTTON VALUE CHAIN : LOCAL INNOVATIONS FOR GLOBAL PROSPERITY
DECLINE OF COTTON
Competitive Challenges (Synthetic Fibers)

Synthetics are chemical fibers.

Popular: most polyester usage steeply increased, providing preferred option.

Emergence of Polymer based synthetic fibers impacted Cotton

Produced cheaply with different attractive properties in sufficient quantities.

Resulting: reconfiguration of demand due to consumer preference.

Properties: Flexibility, Adaptability, Durability, Better Dye-ability and Speed.

Comforting Cotton: declared as “Fiber For The Rich.”

Synthetics are chemical fibers.

Emergence of Polymer based synthetic fibers impacted Cotton

Produced cheaply with different attractive properties in sufficient quantities.

Resulting: reconfiguration of demand due to consumer preference.

Properties: Flexibility, Adaptability, Durability, Better Dye-ability and Speed.

Comforting Cotton: declared as “Fiber For The Rich.”
DECLINE OF COTTON
Competitive Challenges (Environmental)

- **Cotton became**: guzzler of resources like water, energy, emitter of GHG and soil erosion.

A

Cotton scientist / technologist to become competitive, adopted overuse:
- of chemical fertilizers,
- deployed toxic chemicals pesticides.

B

**Results**
- Green House Emissions,

**Impacting**
- a. The Environment,
- b. Health,
- c. Biodiversity,
- d. Water,
- e. Soil.

C

Scientists introduced GMO Crops (genetically modified).

**Resulting**: high yields but environmental blemishes.

Proving counter productive results
Carbon Sequestering & Biochar

- Scientists spotted “cotton’s capacity to capture CO2 from air and store” in the soil.
- Carbon adds productive richness to soil biomass.
- Cotton fiber benevolently contains 94% of cellulose.
- Cellulose contains 44.4% of carbon.
- The above process is termed as Carbon Sequestering.
- Enhances productivity several fold. E.g. Cotton stalk can be converted into carbon rich biochar.
- Biochar can be introduced back into the soil to enrich it with organic carbon.
- The biochar needs a special policy and promotional emphasis to heighten sustainability of cotton.
- Presently, cotton stalks are burnt, creating pollution.
- Biochar ensures carbon addition to soil, making it rich - highly productive.
SUSTAINABILITY

Adopting Practical Approaches

- No-till cotton farming has potential, to sequester carbon, is implementable.
- Use of earthworms i.e. Vermiculture,
- Protecting soil micro organism with use of bio friendly fertilizers.

Sustainable practices

Agro Chemical Management
- Reduce/eliminate synthetic pesticides produced from fossil fuels.
- A short list guidebook for bio friendly pesticides be circulated.
FOCUSING ON
Cotton’s Climate Positive Championship

• Cotton sustainability, can be enhanced with carbon utilization and sequestration.
• Empowering cotton through rise in productivity, enhancing its value.
• Agro universities, national extension services, require to be committed to promote this commanding aspect of cotton.
• Australia has very good system of promotion known as BMP, such promotional measure of awareness and adoption be adopted.
FOCUSING ON

Soil Health

SOIL HEALTH IS THE PIVOTAL POINT OF
PRODUCTIVITY : BIO DIVERSITY : ECO SYSTEM

- Rejuvenating soil health holds key through Carbon Sequestration.
- Soils that are rich in organic matter helps crops capture more CO2.
- Enriching soil done by adding organic biomass and conservation agricultural practices such as –
  ✓ recycling crop residues
  ✓ use of cover crop
  ✓ use of green manure
  ✓ application of compost bio fertilizers
  ✓ biochar & avoidance of soil pollution.
Cotton sustainability on production and supply side are provenly discussed.

Being in a Prosumer society i.e. collaborative approach of producer & consumer is imperative.

Sustainability through cotton be pervasively inducted in textile value chain also.

Growing realization to community of consumer attitude is now manifest in favour of cotton.

Projects on sustainability by various certification firms like BCI Cotton, Fair Trade Cotton, Reel Cotton, Clean cotton, etc.

On consumption side therefore, textile mills need to adopt eco friendly systems.

This is reflective to adjusting consumer preferences i.e. sustainability.
Eco Friendly Systems on Cotton Textile Value Chain

The sustainability factor has been realized and change in outlook taking place.

Realization that sustainable cotton can lead, surge to promote better ecological/environmental health.

The retailers adopting and promoting cotton increasingly more of organic cotton also.

Cotton sustainability on production and supply side are provenly discussed.

Basically, cotton is biodegradable, has great sustaining power, regenerative capabilities.

Need to adopt eco friendly technologies like enzymatic process, radio frequency, electro chemical dying, micro waves and infra red heating.

Eco friendly technologies are available in bridging-oxidizing, desizing, scoring, dying, printing and finishing.
Cotton sustainability on production and supply side are provenly discussed.

Clearly, synthetic fibers end-up into micro plastics, pollutes river and oceans, etc. create high degree of carbon gases.

Revelation is - fast fashion industry using synthetics are responsible for 10% of planet’s carbon emission.

As observed 1.17mn tons of textiles are discarded every year, which uses energy, water and emits CO2 gases.

Recycled / Reused clothing system can reduce energy consumption by 84% and CO2 emissions by 77%.

Basically any energy used specially with fossil fuels and products thereof creates heavy impairment.

Industries must explore avenues for reuse and recycling textiles to reduce carbon emissions.

Eco Friendly Systems on Cotton Textile Value Chain

COTTON VALUE CHAIN : LOCAL INNOVATIONS FOR GLOBAL PROSPERITY
COTTON VALUE CHAIN

Source of Livelihood and Employment

- Cotton production employs 250mn people globally.
- It is non food crop globally, it occupies only 2.5% of global available land.
- Growing cotton employs 7% of total work force, even in developing countries.
- Cotton is a BOON to man kind.
- Can be competitive, a fiber of masses and classes.
- Can spell prosperity.

Cotton shows sign of resurgence with its capacity of sustainability, transformative power and resilience.
CONCLUSION

Let us RESOLVE to advance our COTTON SUPPLY CHAIN to a
ENVIRONMENT FRIENDLY AND EFFECTIVE VALUE CHAIN

UNITED NATION’s
12th SUSTAINABLE DEVELOPMENT GOAL
signifies
RESPONSIBLE CONSUMPTION
AND PRODUCTION
will lead us to achieving
SUSTAINABILITY

Metamorphic Transformative of Cotton’s Resurgence
To ensure cotton becoming prime fibre, thus meeting
UN’s 12th Goal by actualizing the mandate –
“Ensure Sustainable Consumption And Production Patterns”

Today’s Action is Destiny of Tomorrow
Through Sustainable Practices In Cotton.

81st Plenary Meeting of International Cotton Advisory Council
2nd - 5th December, 2023 | Jio Convention Centre | Mumbai, INDIA
COTTON VALUE CHAIN : LOCAL INNOVATIONS FOR GLOBAL PROSPERITY
PRESENTATION BY
Shri Suresh Kotak
CHAIRMAN | KOTAK COMMODITIES

81st Plenary Meeting of International Cotton Advisory Council
2nd - 5th December, 2023 | Jio Convention Centre | Mumbai, INDIA
COTTON VALUE CHAIN : LOCAL INNOVATIONS FOR GLOBAL PROSPERITY