Exploring new markets and technology for cotton value chain
Balancing Tensions in a Sustainable Cotton Textile Industry

Dr ZIESCHANK, ITMF

ICIA 81ST PLENARY MEETING 2023
TUESDAY, OCTOBER 5TH, 11-13:00
Advances in cotton farming and processing

Advanced Technologies Reshaping Cotton Utilization

- Genetic and agronomic advancements
- Digital and smart cotton-textile innovations

Sustainability and Ethical Practices in Cotton Production

- Environmental footprint
- Ethical sourcing and production
- Strategies for balancing growth and sustainability
Create / maintain needs for cotton fibre
Pressures on cotton demand

- Substitute
- Competition
- Interdependence
Main Raw Material Consumption of China’s Cotton Textile Industry

source: China Cotton Textile Association.

数据来源：中国棉纺织行业协会。
Tension 1
LOCAL CROP VS GLOBAL MARKETS
On a local level, farmers need to consider:

- Available resources
- Economic circumstances
- Specific environmental conditions

They are also influenced by:

- Global market prices
- International trade policies
- The demands of global consumers

*Long term risk from climate change -caused disruptions to fiber crop productions.*: “Climate Change could leave half of the planet’s cotton growing hubs highly vulnerable to temperature increases, changes to rainfall patterns and extreme weather events by 2040”
Tension 2

RECYCLED FIBRES VS YARN QUALITY
Solution for the 2. Fundamental Law of Fibre Recycling

1. Cascade applications
   - Lingery
   - Shirt
   - Jeans
   - Isolation
   - Paper/Cardboard
   - Thermal Use

2. Shortfibre separation
   - Business shirt

3. Blending with longer fibres (e.g. virgin)

3 Strategies exist to maintain the staple length.
Tension 3
SUSTAINABILITY VS PRODUCTIVITY
Indian cotton: Shifting patterns

Reducing cotton share

80% 70% 60% 55% 40%

New generation of seed/agri input topmost priority
Sustainability and traceability gaining focus
What are the most polluting industries?
3. Fashion

How much water is needed to produce 1kg of cotton?
10 or 20’000 litres

To which extend does cotton farming participates to GHG emissions?
5-10% [2011] <1% [rough estimate]
Opportunities
TECHNOLOGICAL ADVANCEMENTS

NICHE MARKETS

GLOBAL AWARENESS AND BRANDING

INTEGRATION OF SUPPLY CHAIN
Thank you!
Sources

[1] ITMF Annual Conference 2023, Keqiao, China, «Cotton insights and trends», Mr. Desai, BMAN Cotton Consultancy


