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Cotton: A Global Public Good

Eric B. Trachtenberg, Executive Director, International Cotton Advisory Committee (ICAC)

The views expressed are those of the author and do not necessarily reflect the views of UNCTAD.

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Executive Director International Cotton Advisory Committee (ICAC)



What is ICAC?



- The "United Nations" of cotton & products
- Founded in Washington, DC, in 1939, ICAC is the only intergovernmental body for cotton producing, consuming, trading & investing countries
- Intergovernmental Commodity Body: One of only seven ICBs recognized by the United Nations & the only one responsible for the entire cotton value chain, from seed to end consumer
- Report directly to our 20+ Member governments, almost half of which are in Africa: Benin, Burkina Faso, Cameroon, Côte d'Ivoire, Egypt, Kenya, Mali, South Africa, Tanzania & Uganda



ICAC's Current Work

Data, Publications & Instruments	 Support fundamentals of trade
Ag Development	 Boosting agricultural incomes & productivity
Sustainability & Traceability	• Deepening environmental work on the issues
Textiles	Supporting textile sector development
Private Sector, Brands & Retail	 Engaging with whole value chain to support cotton
Promotion	 Moving from advocacy to promotion to support cotton
Policy Engagement & Support	 Working to address global issues of concern





Cotton's Challenges & Opportunities

Advantages

- •Natural fiber (biodegradable with less waste)
- •Potential to reduce poverty & conflict, esp. in Africa
- •Women's empowerment (43% of cotton farmers are women)
- •Climate change (cotton sequesters carbon!)
- •Semi-xerophyte (adapted to dry conditions grows where other crops can't)
- •Higher-end feel that consumers like

Challenges

- •Cotton costs more than synthetics (labor intensive/complex supply chain)
- Trend to fast fashion & athleisure casual dress & working from home advantage synthetics
- •Natural product, so supply can vary due to adverse weather, adding to volatility
- •Cotton has multiple, variable quality characteristics that make it more complicated to use
- •Lack of competitiveness in some engineered/functional uses
- •Competes with other crops for land area
- Misconceptions about cotton
- •Regulatory issues





Cotton's Challenges & Opportunities

- Regulation is a response to legitimate concerns about the environmental footprint of textiles
- The key issue is not whether new rules will go forward, but what form they will take. Some of these outcomes could disadvantage cotton
- Success for the cotton sector will depend on our ability to make the case to governments, consumers, civil society & the private sector:

Cotton is a global public good

Backed by two major arguments: The environment & livelihoods

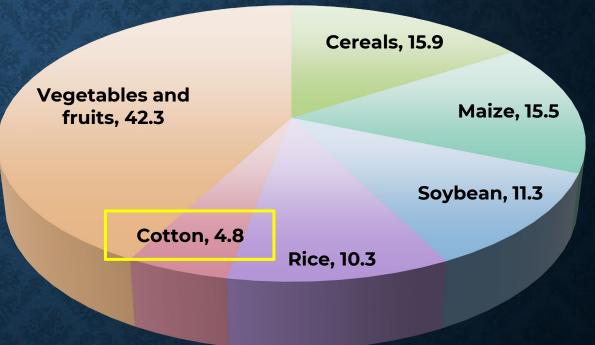


The Environment & Cotton

Compared with other crops, cotton:

- Occupies 2.5% of global crop land
- Uses 1.7% of global irrigation water
- Uses 4.8% of pesticide by value
- Uses 4.3% of pesticide by volume
- Uses only 2.8% of fertilizers

Pesticide Use, by Value, Percent

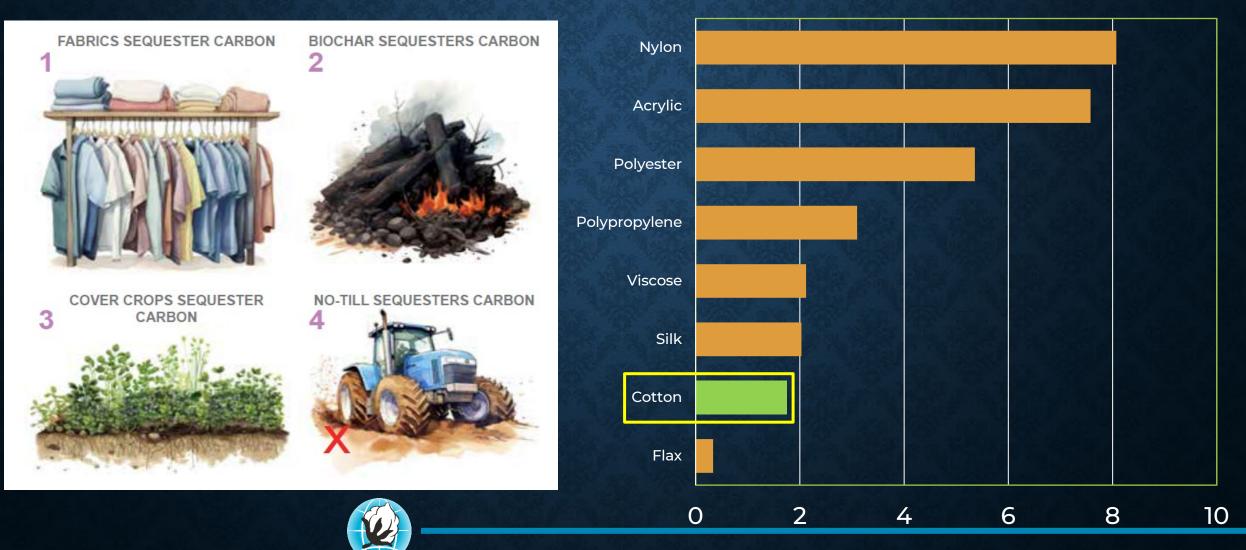


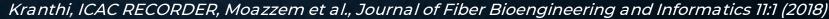
■ Cereals ■ Maize ■ Soybean ■ Rice ■ Cotton ■ Vegetables and fruits



Source: ICAC Cotton Databook, 2022

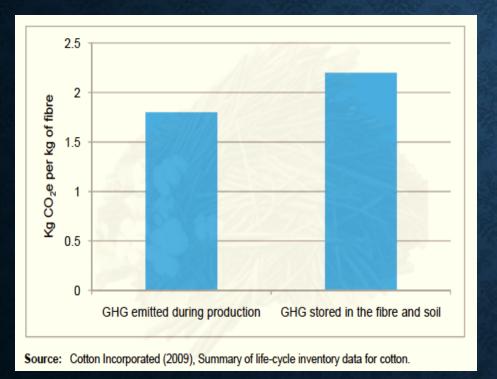
The Environment & Cotton Cotton Emits Low CO₂ Kg of GHGs per Kg fiber





The Environment & Cotton

Carbon Sequestration by Cotton Fiber and Stalks



Cotton fibers are 96-98% pure cellulose $((C_6H_{10}O_5)_n)$

Cotton sequesters 0.5 Kg additional CO₂ per Kg fiber produced

Products like cotton fabrics & furniture made from cotton stalk particle boards maintain carbon for several years until disposal

Typical lifespan of carbon in cotton fabrics and other products averages around 20 years (Xie, 2021; Ogle et al., 2019)

Biochar produced from cotton stalks is stable for more than 100 years



Kranthi, ICAC RECORDER

The Environment & Cotton

Cotton biodegrades in soil in 12 weeks & polyester does not

Use of synthetic fibers results:

- Higher quantity of waste
- Release of harmful chemicals (e.g. phthalates and Bisphenol A (BPA))
- Release of microplastics into the environment contaminating water, soil, food & people
- Linear consumption is inconsistent with circular economy

These issues <u>should</u> be included in all LCAs but are often not

Recycled Polyester T-Shirt



Week-0

Recycled Polyester T-Shirt



Week-12

Cotton Jersey, Bleached, Softened



Week-0

Cotton Jersey, Bleached, Softened





Livelihoods & Cotton

Cotton's rank in the overall exports of C4+ African nations





Livelihoods & Cotton: Africa SWOT

Strength	Weakness
Availability of Sustainable Cotton Market Access Specially AGOA & EPA without any Expiry Low Per Capita Income / Wages Availability of Human Resources Strategic Location - Shorter Lead Times to Europe Government Commitment to Develop Textiles Value Chain Regional Integration - AfCFTA	Policy Uncertainty / Implementation Incentives Dearth including taxation, importation, investment etc Access to Finance Skill Gap Infrastructure Hurdles Limited Textiles Base Utilities Shortage and Pricing Outdated Technology Marketing Challenges Limited R&D and Quality / Compliance
Opportunity	Threat
New Sourcing Destinations E-Commerce Domestic Commerce SMEs Development Brand Africa Niche Markets and Products	Implementation of Policy & Fiscal space for schemes Global Competition High Cost and Dependence on Import Social & Environmental Concerns Market Access Global Political and Economic Volatility



Cotton: A Global Public Good

Nature Positive

- Biodegradable with less persistent waste
- Lower GHG compared to other fibers
- Semi-xerophyte adapted to dry conditions grows where other crops can't
- Carbon sequestration & carbon payments (PES)

Fighting Poverty

- Cash crop for poor farmers
- Potential for jobs downstream in textiles
- Potential to reduce poverty & conflict, esp. in Africa
- Women's empowerment (43% of cotton farmers are women)





Cotton: A Global Public Good

The Faces of Cotton

- These & others along the value chain are our constituents
- Action & Next Steps
 - There may be a willingness to pay a premium for sustainability claims that are trusted
 - Make the case for cotton to brands & consumers
 - Deepen coalition of farmers, cotton traders/allies, environmental civil society, quality brands, governments & others









Photo Credits: Cotton Made in Africa, African Cotton Foundation, BCI, Cotton Australia, Fairtrade

Questions & Discussion

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