

Adding Value to the Global Cotton Economy:

Cotton for Good



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

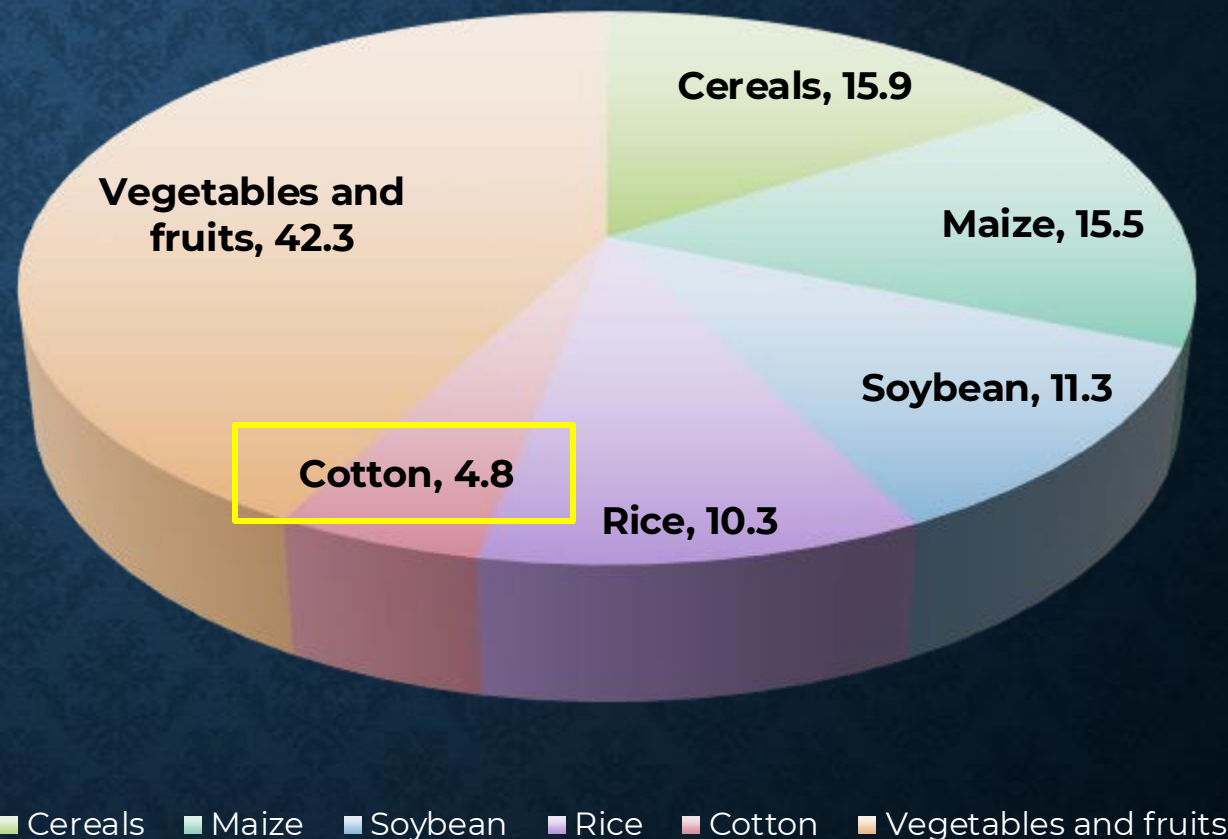


The Environment & Cotton

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



The Environment & Cotton

Cotton Emits Low CO₂ Kg of GHGs per Kg fiber



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 should be included in all LCAs but are often not

Recycled Polyester T-Shirt



Week-0



Recycled Polyester T-Shirt

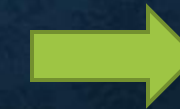


Week-12

Cotton Jersey, Bleached, Softened



Week-0



Cotton Jersey, Bleached, Softened



Week-12



Livelihoods & Cotton

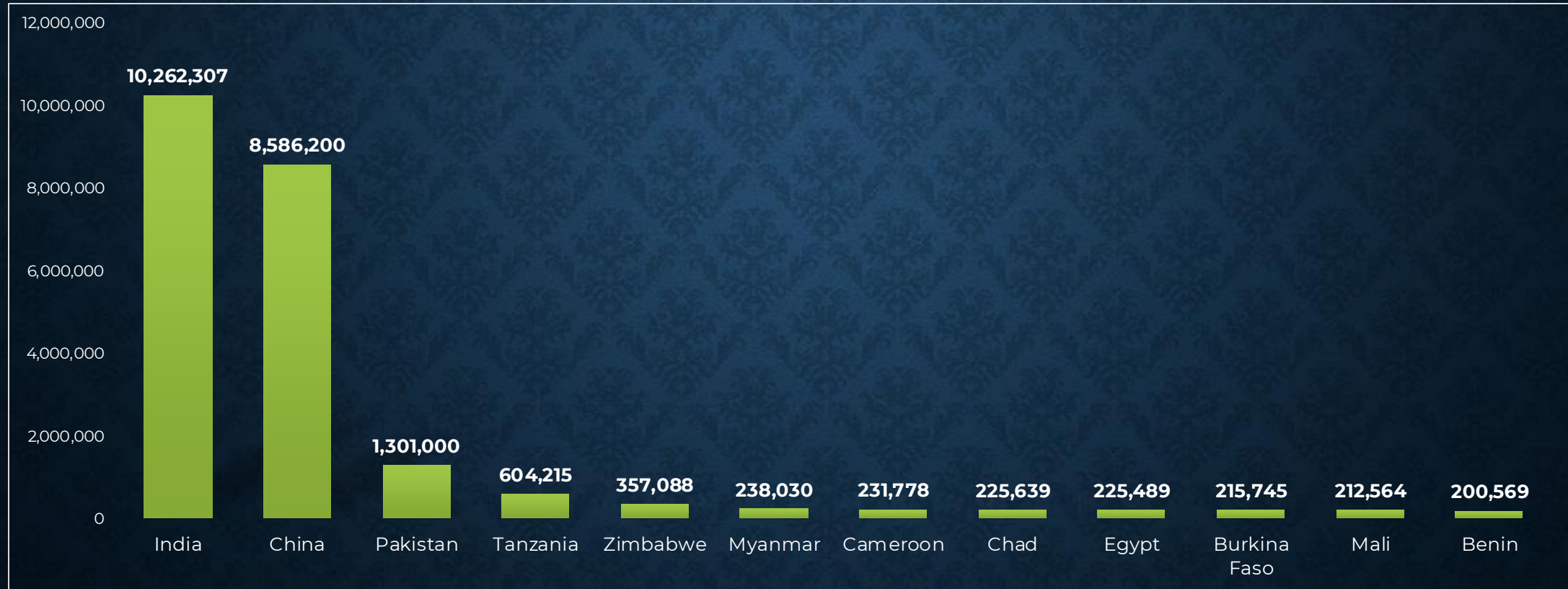
Cotton production, 1000 tons, by country



Source: ICAC

Livelihoods & Cotton

Cotton farmers, by country – does not include downstream



Source: ICAC

Livelihoods & Cotton

Value Addition in the Textiles Value Chain \$/Kg



Cotton
\$ 1.80/kgs



Spinning
\$3.80/Kgs



Weaving/Knitting
\$5.20/Kgs



Processing
\$9.40/Kg



Garments
\$20/Kgs

Cotton be a catalyst for industrialization & downstream economic transformation



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



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, Mozambique, South Africa, Tanzania & Uganda



Current Work – Country Benefits I

- **Data & Publications**
 - Supports billions in trade with essential data on production, consumption & trade
 - Ensures cotton exporters can recognize & continue to profitably take advantage of foreign market opportunities
- **Policy & Regulation**
 - Provide key information on policy issues to countries & stakeholders
 - ICAC advocates for cotton in regulations & legislation
- **Downstream Markets**
 - Engage with the textile sector, brands, NGOs & retail to boost cotton consumption
 - Increase demand for cotton by supporting new textile technology
- **Outreach**
 - Make the quality & sustainability case for cotton
 - Counter misinformation by amplifying the truth about cotton



Current Work – Country Benefits II

- **Reduce Risks to Cotton**
 - ICAC leads the International Cotton Researchers Association (ICRA) a research network to help in case of a pest and disease outbreaks
- **Boosting Production, Yields & Farm Income**
 - Improving yields & reduce effects of weather changes through regenerative agriculture
 - Establishing a carbon credit payments system for farmers (India & Cameroon pilots underway)
 - Facilitate the introduction of new varieties to boost production
- **Promoting Trade and Investment**
 - Global Cotton-Textile Investment Summit (Cote D'Ivoire, 2026)
- **ICAC Committees**
 - Commercial Standardization of Instrument Testing of Cotton (CSITC) supports contract sanctity
 - Private Sector Advisory Council (PSAC) of 60+ entities from farm to retail to advise on issues
 - Expert Panel on Social, Environmental & Economic Performance (SEEP) to develop knowledge of best practices of sustainability



ICAC's Current Work Detailed Overview



Our Work: Data & Publications

- Providing essential data products to support trade
- Publications on statistics, sustainability, textile demand, government measures & items of specific interest:
 - Cotton production, consumption, export, import, stocks & mill use
 - Information on varieties & specialty cotton fiber grown globally
 - Water use, fertilizer use, cost of production & production methods
 - Textile fiber consumption (end use), per capita
 - World cotton & non cotton textile fiber consumption
 - Prices of textile fibers
 - World consumption of major textiles fibers
 - Imports & exports of cotton yarn and fabric
 - New Textile Observer covers markets



Special Issue: Climate smart innovations as gamechangers for cotton production	
1. Editorial	1
2. Climate Smart Agriculture for Improved Soil Health and Biodiversity: Alexandra Perceval and Inés Sotelo	2
3. Impact of Climate Change on Global Cotton: Herve Leroy	4
4. Climate Smart Cotton Production Technologies for Improved Yields: Yi Peng	11
5. Climate Smart Breeding of Cotton: Enhancing Resilience in the Face of Climate Change: Henri Gibaud, S. K. K. K. K.	17
6. Implementing Climate-Smart Innovations in Cotton Farms in Sub-Saharan Africa: Herve Leroy	23
7. Implementing Climate-Smart Agriculture: Mexico's Path	25
8. Improving Agricultural SMEs & Export Cotton: Do They Combat Climate Change? Robert Dorn	28
9. Digitizing Carbon Farming: Empowering Smallholder Farmers through Carbon Markets: Carter et al.	32
10. Winner of the ICAC RESEARCHER OF THE YEAR AWARD: Dr. Herve Leroy	33

Our Work: Agricultural Development

- **Zambia: Regenerative Agriculture for Sustainable High Yields (EU-ITC)**
 - Introducing regenerative practices, strengthening productive capabilities & value chain alliances
 - Over 350 model farm demonstrations were established connected to 50,000 smallholder cotton farmers
 - Addresses the challenge of acidic soils, project introduced biochar
 - Farmers more than doubled yield in most locations compared to control fields
 - Increases ranged from 50% to 200% in the project area
- **Cameroon: i4Ag Innovations For Climate Resilience (GIZ)**
 - Adapt Innovations for Climate Change Resilience for 40,000 smallholder cotton farmers
 - Launched in 2024



Our Work: Agricultural Development

- Collaboration with the *Partenariat pour le Coton* in Africa
- Now developing new projects to improve yields & farm incomes in Africa based on ICAC regenerative agriculture methods to promote more agricultural development & sustainability
 - Bokashi (composting), biochar (charcoal), nano biopesticides, & jivamrit (microorganisms)
 - Goals: improve soil health, improve water retention, reduce input costs – while boosting yields & sustainability
 - Reduces the production versus nature conflict
 - Biochar can lay the base for payments for ecosystems services (PES)
 - This is being piloted in Cameroon & India
- Also considering policy & institutional reforms as appropriate
 - These can include trade policy, access to finance, seed regulations & other issues if governments are willing to consider these measures



Our Work: Trade & Sustainability



- **Trade: Instrument Calibration**
 - Commercial Standardization of Instrument Testing of Cotton (CSITC) supports contract sanctity. This is critical to trade
 - CSITC benchmarks laboratory performance to improve quality measurement
 - Since inception, reduced the variation in test results by 35%
- **Supporting Sustainability**
 - Develop knowledge of best practices of sustainability through Expert Panel on Social, Environmental & Economic Performance (SEEP)
 - Promote traceability to back sustainability claims
 - Ensure that traceability does not disadvantage small holders
 - SEEP report addressed the feasibility and challenges of diverse regenerative agriculture practices & their implications for farming systems of varying sizes and levels
 - Now looking at possibility of carbon sequestration for large farms



Our Work: Textiles & Private Sector

- **Textiles**
 - Textile policy support in Africa to boost cotton demand
 - New publication: Textile Observer
 - Launched textile portal to provide information to stakeholders
 - Launched the Cotton Innovation Platform (CIP) to disseminate technology to enable cotton to be more competitive in new ways (such as technical textiles)
 - Preparing a Global Cotton-Textile Investment Summit to support investment in ICAC member cotton/textile value chains
- **Private Sector Advisory Council (PSAC)**
 - Group of 60+ entities from farm to retail to inform ICAC's work
- **Brands & Retail**
 - Cotton is part of a market system from farm to consumer
 - Building stronger connections for cotton through the value chain via trade groups



Our Work: Outreach & Policy

- **Outreach**
 - Make the quality & sustainability case for cotton
 - Counter misinformation by amplifying the truth about cotton
 - Build bridges with environmental groups to support cotton
 - Participated in COP29
 - Continue building alliances with other natural fiber groups such as the Discover Natural Fibers Initiative (DNFI)
 - Convene countries to discuss issues in regional meetings
 - Convene stakeholders to discuss issues (Global Cotton Leaders Roundtable)
 - Collaborate with the UN, WTO & other IOs on issues
- **Policy Engagement & Support**
 - Track textile & related policies that greatly affect markets
 - Provide key information to countries & stakeholders in ICAC members
 - Participate in other policy engagements such as Make the Label Count in the EU & support resolution of bilateral trade issues by request



Our Work: Events & Networks

- **Major Events**
 - Plenary Meeting (Uzbekistan/2024 & Tanzania/2025)
 - Global Cotton-Textiles Investment Summit (Cote D'Ivoire/2026)
 - World Cotton Day (Benin/2025 & Rome/2025)
 - World Cotton Research Conference (India/2028)
- **International Cotton Researchers Association (ICRA)**
 - ICRA has 2,600 cotton researchers as members
 - ICRA publishes a monthly newsletter
 - ICRA actively participates in the 5 ICAC-Regional network meetings and the World Cotton Research Conference
- **Regional Research Networks**
 - There are 4 ICAC regional networks; Asia (ACRDN); Africa (SEACF & PR-PICA); Mediterranean (ICRNCMM) & South America (ALIDA)
 - The Regional Network meetings are held once every 2 years

