ICAC – A Force for Good for Cotton?

Kai Hughes
Executive Director
International Cotton Advisory Committee
• An Inter-Governmental Body
• One of only 7 International Commodity Bodies recognised by the UN
• Speaks on behalf of the Cotton and Textile Industry

www.icac.org
Key Objectives

1. Serve as a forum for the development of policies and solutions to strengthen the global cotton and textile sector
2. Encourage the development and dissemination of knowledge
3. Enhance transparency by promoting an objective debate on cotton based on facts
4. Promote the harmonisation of cotton practices
5. Promote the sustainability of the world cotton sector
6. Represent the cotton and textile sectors in UN forums

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Key Working Groups

• SEEP – Social, Environmental & Economic Performance
• PSAP – Private Sector Advisory Panel
• CSITC – Commercial Standardisation of Instrument Testing of Cotton
• IFCP – International Forum for Cotton Promotion

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SUSTAINABILITY IN COTTON

• SEEP = Expert Panel on the Social, Environmental and Economic Performance of Cotton

• Advisory body of ICAC

• First meeting in September 2007

• Collaboration with FAO

• A guidance framework was published in 2015

• 14 countries conducted pilot tests of the indicator framework: Argentina, Australia, Benin, Bolivia, Cameroon, Colombia, China, Ecuador, Paraguay, Peru, Togo, Senegal, US and Zambia
The Cotton Portal

“The Cotton Portal will enable cotton producers and traders to harvest greater benefits from increased participation in global trade, particularly for least developed countries. By making the sector more transparent, businesses will have easier access to trade and market intelligence, allowing them to add additional value to their exports.”

ITC Executive Director, Arancha González
“There are three types of lies; lies, damned lies and Statistics”

Benjamin Disraeli/Mark Twain
WORLD CONSUMPTION OF MAJOR TEXTILE FIBRES

Million tons

- Cotton
- Wool
- Non-Cellulosic
- Cellulosic
WORLD COTTON CONSUMPTION REMAINS BELOW PEAK

Million tons

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WORLD CONSUMPTION PER CAPITA
Kilograms

COTTON

1960: 3.4
2016: 3.3
2025: 3.2

CHEMICAL FIBRES

1960: 1.1
2016: 8.7
2025: 10.9

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## U.S. Shoppers Trust Cotton, Doubt Manmade Fibers

### Which Type of Clothing is...

<table>
<thead>
<tr>
<th></th>
<th>Cotton</th>
<th>Polyester</th>
<th>Rayon</th>
<th>Cotton/Poly Blend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most comfortable</td>
<td>69%</td>
<td>5%</td>
<td>8%</td>
<td>18%</td>
</tr>
<tr>
<td>Most breathable</td>
<td>68%</td>
<td>7%</td>
<td>10%</td>
<td>14%</td>
</tr>
<tr>
<td>Lasts the longest</td>
<td>51%</td>
<td>13%</td>
<td>11%</td>
<td>25%</td>
</tr>
<tr>
<td>Most versatile</td>
<td>46%</td>
<td>8%</td>
<td>13%</td>
<td>34%</td>
</tr>
<tr>
<td>Hardest to iron</td>
<td>24%</td>
<td>28%</td>
<td>40%</td>
<td>8%</td>
</tr>
<tr>
<td>Hardest to wash</td>
<td>19%</td>
<td>21%</td>
<td>50%</td>
<td>10%</td>
</tr>
<tr>
<td>Falls apart the most</td>
<td>19%</td>
<td>26%</td>
<td>44%</td>
<td>11%</td>
</tr>
<tr>
<td>Biggest odor issue</td>
<td>20%</td>
<td>34%</td>
<td>34%</td>
<td>11%</td>
</tr>
</tbody>
</table>

Cotton Incorporated’s Lifestyle Monitor™ Survey
History of Smart Textiles

- Conductive threads ELITEX in production
- Automated manufacture
- Textile electrodes, luminous textiles using electro-luminescence
- Testing and standardisation
- Heated underwear
- Communications glove
- Medicinal products for pain therapy
- Illuminated protective clothing
- Smart fitness apparel
- Interactive textiles
- Illuminated textiles in the home
- Sensor textiles
- Heated clothing

- Wires as circuitry in textiles
- Luminous textiles using LEDs
- First textile transponder


Textile electronics

FashionTech Berlin 2017
Smart Textiles will reach $1.8 billion by 2021

Source: http://intechresearch.com/market_reports/smart-textiles-markets-2016-2023
The Cotton-Water Footprint Debate

20,000 Litres/kg
Myth or Fact?

International Cotton Advisory Committee
Irrigation water used to produce 1 Kg lint

15 countries
19.0% area
22.6% of production
73.0% of total irrigation

One Kg Lint + Two Kg seed

Litres
1214
41.3% of cotton is produced without irrigation water.

55% of global cotton area is rainfed.
73 percent of global cotton harvest comes from irrigated land

Actual fact from data

Only 58.7 percent of global cotton harvest comes from irrigated land (45%).
Globally Cotton is produced by using 1214 litres irrigation water /Kg lint

87% of cotton is produced by using 644 litres irrigation water / Kg lint

73% of cotton is produced by using 288 litres irrigation water / Kg lint

55% of cotton is produced by using 0 irrigation water /Kg lint
<table>
<thead>
<tr>
<th>Crop</th>
<th>Typical water requirement (in litres) per kilogram of crop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cotton</td>
<td>7,000 - 29,000</td>
</tr>
<tr>
<td>Rice</td>
<td>3,000 - 5,000</td>
</tr>
<tr>
<td>Sugar Cane</td>
<td>1,500 - 3,000</td>
</tr>
<tr>
<td>Soya</td>
<td>2,000</td>
</tr>
<tr>
<td>Wheat</td>
<td>900</td>
</tr>
<tr>
<td>Potatoes</td>
<td>500</td>
</tr>
</tbody>
</table>

* [http://wwf.panda.org/about_our_earth/about_freshwater/freshwater_news/?uNewsID=9208](http://wwf.panda.org/about_our_earth/about_freshwater/freshwater_news/?uNewsID=9208)
Cotton consumes only 3% irrigation water

Hoekstra et al., 2011
“the main causes of water shortages are inappropriate irrigation systems and growing crops unsuited to the environment.”

“cotton, rice, sugar cane, and wheat as the “thirstiest” crops in nine large river basins rich in biodiversity. WWF believes that growing crops more suited to the location and season would give more ‘crop per drop’.”

World Wildlife Fund
Cotton & Water Facts

• Cotton consumes only 3% of Global irrigation water
• 1214 L of irrigation water is used to produce 1 Kg lint
• Many food crops need more water than cotton
• Only 45% (not 73%) of global cotton area is under irrigation
• Water productivity and use efficiency are constantly increasing
Research Networks

• Asia
• Latin America
• Africa
• Mediterranean and the Middle East
• World Cotton Research Conference – Turkey 2020
The interest of microplastics and microplastic fibres pollution has increased over the past decade
Global Challenges

• climate change
• sustainability
• traceability
• sustainable inputs
• yields
• land-use
• water use
• quality
• use of data – big data, Internet 4.0, Internet of things etc

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Strategic Review
ICAC – A Force for Change for Cotton

Thank You