Mind the Gap:
Towards a More Sustainable Cotton Market

Pesticides Action Network UK, Solidaridad, and WWF
Summary briefing based on research by Simon Ferrigno
April 2016
The situation
SEIZING OPPORTUNITIES

Production more sustainable cotton 2,173,000 MT lint in 2014

83% OF MORE SUSTAINABLE COTTON ISN’T SOLD AS SUSTAINABLE COTTON

Volume of more sustainable cotton fibre

<table>
<thead>
<tr>
<th>Year</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>MT</td>
<td>163</td>
<td>222</td>
<td>332</td>
<td>432</td>
<td>933</td>
<td>1,052</td>
<td>2,173</td>
</tr>
</tbody>
</table>

Sustainable cotton in 2014/15 was about 10% of global production

Sustainable cotton in 2015 is expected to be more than 3 million MT

SUSTAINABLE COTTON: IT HAS NEVER BEEN EASIER

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SUSTAINABLE COTTON: UPTAKE IS LAGGING BEHIND

Production more sustainable cotton 2,173,000 MT lint in 2014

Retailer uptake is estimated 360,000 MT lint (17% of production)
International clothing brands and retailers have a crucial role to play in securing the future of the market for more sustainable cotton, according to research carried out for Pesticides Action Network UK (PAN UK), Solidaridad and WWF.

Production of more sustainable cotton has never been higher, reaching 2,173,000 tonnes in 2014 or 8% of the total global supply. This is projected to rise to 13% in 2015. Richard Holland, Director, WWF Market Transformation Initiative, said: ‘Buying more sustainable cotton has never been easier. Leading companies like IKEA and H&M are showing it’s possible to use 100% more sustainable cotton in their products within a couple of years.’

But a study by independent researcher Simon Ferrigno has found that uptake is lagging behind, with only 17% of all sustainable cotton being bought by retailers. The remaining 83% is diverted to the conventional cotton market, which can act as a disincentive to farmers to invest in sustainable cotton production. If greater demand is not reflected in increased orders from retailers, there is a danger that farmers will abandon sustainable production altogether and the opportunity to improve global standards will be missed. Isabelle Roger, Senior Manager Cotton Programme at Solidaridad comments: ‘Lots more sustainable cotton is available but shockingly it is not being sourced and bought as sustainable cotton.’

Cotton is grown in around 80 countries worldwide and is a key raw material for the textile industry, representing around 32% of all fibres used. Around 23 million hectares around the world are planted with cotton, accounting for 2.5% of global arable land, and cotton is a core sector in the economies of developing countries such as Mali, where it made up 60% of exports in 2013. Sustainability issues include the widespread use of pesticides, with 6.2% of global pesticide sales associated with cotton production. Environmental impacts such as loss of biodiversity, soil erosion and contamination have intensified as cotton has increasingly been produced as a monocrop, with 73% of global production currently dependent on irrigation. Keith Tyrell, Director at Pesticide Action Network UK, said: ‘Cotton needs cleaning up. Conventional production requires the use of large amounts of water and pesticides. Sourcing more sustainable cotton is the best way forward.’

Sustainable cotton production also has the potential to lift farmers out of poverty by providing a more stable income and improving working conditions. The US Department of Labor reported in 2014 that child labour or forced labour existed in the cotton production process in 18 countries, including five of the top six producer nations (China, India, Pakistan, Brazil and Uzbekistan). When world cotton prices fell by 40% in 2001/02, rural poverty in cotton-growing regions of Benin increased by 8%. Many farmers are also driven into debt by the cost of pesticides and fertilisers.

A number of sustainable cotton standards have been developed in the last 30 years, starting with Organic cotton in the 1980s, followed by Fairtrade in 2004, Cotton made in Africa (CmiA) in 2005 and the Better Cotton Initiative (BCI) in 2009. All of them provide guidance and support for farmers and reassure consumers and retailers that the products they buy are being produced using sustainable farming methods. However, the gap between uptake and supply is widening and at present the bulk of more sustainable cotton ends up on the conventional market.

At least 12 companies have made commitments to source 100% more sustainable cotton, including IKEA, which reported reaching this milestone in 2015. Nevertheless, further commitments and increased market uptake are essential if more sustainable cotton production is to remain attractive and viable for farmers.

PAN UK, Solidaridad and WWF will continue to make the ethical and business case for sourcing more sustainable cotton to global fashion and textile companies through research and campaigning. Regular research will benchmark companies and take note of the most recent trends in the production and uptake of more sustainable cotton.

SUMMARY

GLOBAL RETAILERS HOLD THE KEY TO THE FUTURE OF SUSTAINABLE COTTON

SOURCING MORE SUSTAINABLE COTTON IS THE BEST WAY FORWARD
PAN UK, Solidaridad and WWF have a shared vision for the more sustainable cotton sector and have been involved in several cotton sustainability initiatives spanning more than a decade. Up to now there has been an emphasis on increasing production of more sustainable cotton. Now that a significant supply of more sustainable cotton has been achieved, the three organisations believe the focus should shift towards strengthening demand and uptake. This briefing aims to set out the current position of the more sustainable cotton market and highlight the low uptake, as well as outlining the causes of this situation and making a number of recommendations.

This briefing is based on research into the current situation of the market for more sustainable cotton (subsequently referred to as the “Research”), commissioned by PAN UK, Solidaridad and WWF and conducted by Simon Ferrigno, an independent researcher and writer who has been working on cotton and sustainability issues since 2000. The Research was conducted by reviewing literature on sustainable cotton and documents from sustainability initiatives, as well as interviews with cotton sector stakeholders including standard organisations and programmes, brands, retailers and NGOs.

DEFINITIONS AND SCOPE
The definitions of “sustainable” and “sustainability” used in this briefing are based on the Brundtland definition (1987) that sustainable development is “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.

In this briefing, “more sustainable cotton” refers to cotton cultivated through one of the following four schemes: Organic cotton, Fairtrade cotton, Cotton made in Africa and Better Cotton. These schemes currently dominate the sector in terms of production, market uptake and recognition by stakeholders. They are also regarded as trustworthy both in terms of the content of the standard and because they are underpinned by systems that regulate how the standard is implemented, assessed and governed.

“Conventional cotton” in this briefing refers to any cotton not grown according to the credible standard criteria described above.

The concept of “uptake” refers to the sourcing and purchasing of more sustainable cotton in the supply chain. For example, retail uptake refers to the deliberate use of more sustainable cotton by retailers and brands in their products. “Uptake” differs from “demand” in the sense that it results from actual sourcing and purchasing, while “demand” may only amount to a stated intention or a commitment to source or purchase.
Despite these challenges, cotton farming still provides a cash income for farmers that is complemented by additional income from food crops. If farmed sustainably, cotton gives millions of cotton farmers worldwide the opportunity to earn a decent living.

Cotton is grown in around 80 countries. Cotton farming systems vary hugely between geographical areas, with mechanised large-scale production in countries such as the USA, Australia or Brazil, and small-scale labour-intensive production in, for example, India and Mali. Around 33 million hectares in total are planted with cotton, accounting for 2.5% of global arable land. Annual global cotton production amounts to approximately 26 million metric tonnes (in 2014/15). Cotton is a key raw material for the textile industry as it represents 32% of all fibres used. More than 100 million families are directly engaged in cotton production. A further 250 million in farm labour and primary processing are dependent on cotton. Cotton is a core sector in many developing countries’ economies, such as Mali where it represented 60% of exports in 2013.

**SUSTAINABILITY ISSUES IN CONVENTIONAL COTTON**

Conventional cotton production is characterised by a number of interconnected environmental, social and economic challenges that threaten the sector’s sustainability.

The first environmental concerns emerged in the 1970s about the effect of pesticides on human health and agricultural ecosystems as a result of overuse, misuse or the toxicity of some types. Overuse of fertilisers also causes loss of soil fertility and soil acidification. In 2009 cotton accounted for 6.2% of total global pesticide sales and 14.1% of insecticide sales for all crops.

Pressure on land is another source of environmental problems associated with cotton: land clearing, soil erosion and contamination, and loss of biodiversity. As cotton has increasingly been cultivated as a mono-crop, these problems have intensified. 73% of cotton cultivated globally relies on irrigation. The global average virtual water content of seed cotton is 3,644 cubic metres per tonne, which is the equivalent of nearly 1.5 Olympic swimming pools.

Social issues in cotton production include poor working conditions, with particular concerns raised about the incidence of child labour and forced labour in major cotton-producing countries. In 2014 the US Department of Labor reported the existence of child or forced labour related to cotton production in 18 countries, including five (China, India, Pakistan, Brazil and Uzbekistan) of the top six producer countries, responsible for 80% of global production annually. A lack of gender equity, a common problem across the agricultural sector, is holding back inclusive development in cotton farming communities.

In economic terms, farmers’ incomes are subject to global market volatility. Already low incomes are under constant threat and may drop even further. When world cotton prices declined by 40% in 2001/02, rural poverty in cotton-growing regions of Benin, for example, increased by 8%. The structure of global trade relationships is generally not favourable to farmers. And many farmers are in debt due to the heavy use of costly inputs (pesticides and fertilisers). All these factors contribute to perpetuating poverty for many cotton farmers.

**Why sustainable cotton?**

A key agricultural commodity

Cotton is a key raw material for the textile industry as it represents 32% of all fibres used. More than 100 million families are directly engaged in cotton production. A further 250 million in farm labour and primary processing are dependent on cotton. Cotton is a core sector in many developing countries’ economies, such as Mali where it represented 60% of exports in 2013.

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2. International Cotton Advisory Committee (ICAC).
MORE SUSTAINABLE COTTON OPTIONS

Sustainability standards and programmes have been developed in the last 30 years to address the issues associated with conventional cotton cultivation. These standards provide guidance for farmers on more sustainable farming practices and assure buyers that the product meets the specified requirements.

The groundbreaking programme was Organic cotton in the late 1980s, followed by Fairtrade in 2004, Cotton made in Africa (CmiA) in 2005 and Better Cotton (from the Better Cotton Initiative – BCI) in 2009. Each standard brings something different to the table, both in terms of the standards themselves and the systems supporting them. Based on the Certification Assessment Analysis7 PAN UK, Solidaridad and WWF determined these four standards as credible. Table 1 gives an overview. While Organic cotton focuses on the environmental implications, Fairtrade addresses the social aspects of cotton farming. CmiA and Better Cotton cover both environmental and social dimensions, but CmiA is limited in scope to Sub-Saharan Africa.

IF FARmed SUSTAINABLY, COTTON GIVES MILLIONS OF COTTON FARMERS THE OPPORTUNITY TO EARN A DECENT LIVING

Table 1:
Overview of key features of more sustainable cotton standards

<table>
<thead>
<tr>
<th>BETTER COTTON</th>
<th>CMIA</th>
<th>FAIRTRADE</th>
<th>ORGANIC COTTON</th>
</tr>
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<tbody>
<tr>
<td><strong>STANDARD OBJECTIVES</strong></td>
<td>Make global cotton production better for the people who produce it, better for the environment it grows in and better for the sector’s future. Transform cotton production worldwide by developing Better Cotton as a sustainable mainstream commodity.</td>
<td>Improve the living conditions of African smallholders and promote environmentally friendly cotton production.</td>
<td>Connect disadvantaged producers and consumers, promote fairer trading conditions and empower producers to combat poverty, strengthen their position and take more control of their lives.</td>
</tr>
<tr>
<td><strong>SCOPE OF STANDARDS</strong></td>
<td>The Better Cotton standard covers environmental and social criteria both for smallholders and large farms. BCI is a benchmark standard for the industry and recognises the following regional standards as equivalent: ABR (Algodão Brasileira Responsável / Responsible Brazilian Cotton), myBMP (My Best Management Practice, from Australia) and CmiA (Cotton made in Africa).</td>
<td>Cotton made in Africa (CmiA) is based on Good Agricultural Practices and with a comprehensive range of social and economic criteria. Its focus is on Africa alone, and on small farmers growing in rain-fed conditions. It is benchmarked to the Better Cotton standard.</td>
<td>The Fairtrade cotton standard covers social, economic and environmental criteria. It is limited to small producer organisations in developing countries.</td>
</tr>
</tbody>
</table>

Conducted by Malea Birke
Supplies of more sustainable cotton have increased significantly in the last few years, reaching unprecedented volumes and accounting for about 8% of global production in 2014 (projected to be around 8% in 2015). This positive development will benefit the environment and producers at farm level.

### 2008 - 2014

<table>
<thead>
<tr>
<th>YEAR</th>
<th>VOLUME OF MORE SUSTAINABLE COTTON FIBRE IN METRIC TONNES (MT)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>163,000</td>
</tr>
<tr>
<td>2009</td>
<td>232,000</td>
</tr>
<tr>
<td>2010</td>
<td>332,000</td>
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<tr>
<td>2011</td>
<td>432,000</td>
</tr>
<tr>
<td>2012</td>
<td>933,000</td>
</tr>
<tr>
<td>2013</td>
<td>1,052,000</td>
</tr>
<tr>
<td>2014</td>
<td>2,173,000</td>
</tr>
</tbody>
</table>

It should be noted that standard organisations and promoters have different ways of reporting production and uptake, so it was not always possible to obtain comparable data.

Organic cotton

After reaching a record level in 2010 with 241,698 MT of fibre, organic cotton production declined for several years. In 2013-14 it grew again by 10% to 116,974 MT of fibre. Organic cotton originates from 19 producer countries, with India accounting for nearly three-quarters (74.25%) of total supply, followed by China (10.46%) and Turkey (6.80%). The remaining production is in the Americas, Africa and Central Asia (8.49%).

Fairtrade cotton

Production of Fairtrade cotton fluctuates at around 15,000 MT of fibre. Fairtrade cotton is produced in 7 countries, predominantly India, but also Africa and Central Asia. 66% of Fairtrade cotton is also organic.

CmiA cotton

CmiA production reached 399,808 MT of lint cotton in 2015. CmiA cotton is produced in 8 African countries.

Better Cotton

In 2014 nearly 2 million MT of Better Cotton were produced, including 834,500 MT produced directly in line with the Better Cotton standard, and 1,167,500 MT produced under the benchmarked standards (MyBMP, ABR or CmiA). Better Cotton is now grown in 20 countries, including 2 benchmarked standards in Brazil and Australia and countries where CmiA cotton is grown.

LACK OF MARKET UPTAKE

On the demand side, the sector has seen some major brands and retailers making commitments to source more sustainable cotton, sometimes publicly and with a time-bound target. At least 12 companies (retailers or brands) are committed to sourcing 100% of their cotton from more sustainable sources, either by 2015 or by 2020. This is a welcome development. Nonetheless, translating commitments into reality is a challenge, and the gap between uptake and supply is widening as production grows faster than demand. At present the bulk of more sustainable cotton ends up being sold on the conventional market. Pioneering retailers such as IKEA achieved 100% more sustainable cotton sourcing in 2015.

In addition, there is a lack of publicly available data on more sustainable cotton as well as a need for consistent uptake reporting. Greater transparency and co-ordination between standard organisations and supporters would greatly help by providing the sector with clear indications of market demand and understanding where the bottlenecks are in the supply chain.

Organic cotton

Organic cotton has the largest share of uptake as a percentage of production with 70% to 80% reported as sold as certified (87,731 MT) in 2013. However, much organic cotton is still sold to conventional markets. There are no reports on spinner uptake of organic cotton.

Retail uptake was reported to be 9,982 MT in 2013-14. Sales by farmers to ginners was reported to be 42% of total production in 2013-14 (19,110 MT). There were no reports on spinner uptake of Fairtrade cotton.

CmiA cotton

75,000 MT were reported to have been sold to traders in 2014. This includes CmiA cotton traded as Better Cotton (50,000 MT). There were no reports on spinner or retailer uptake of CmiA cotton.

Better Cotton

In 2015, 517,000 MT of Better Cotton were taken up by spinners and 250,000 MT by retailers or brands (equivalent to 13% of the 2014/15 harvest). With 972,000 MT processed by ginns, the ginner uptake was just below 50% of production in 2014.
more sustainable cotton growers, the most common questions centre on how to improve market access for their produce. Without clear indications of market demand, more sustainable cotton producers may return to conventional cotton farming.

Mainstreaming sustainability in the sector
Despite recent and projected growth, more sustainable cotton still only represents a fraction of global cotton production – about 8% in 2014, projected to rise to 13% in 2015. To make sustainable cotton the norm in the sector will require further increases in supply as well as a rise in the actual sourcing and uptake of more sustainable cotton. Without substantial growth in market uptake, more sustainable cotton will remain a niche product and practices that are damaging for people and nature will persist in the industry as a whole.

REASONS FOR LOW MARKET UPTAKE

Low market uptake of more sustainable cotton has a variety of causes and there is no consensus in the sector on this point. Some reasons are technical; others are related to lack of awareness and willingness. Research interviews with representatives of companies, standard organisations and NGOs yielded a number of explanations, which are summarised below.

LACK OF CONSUMER DEMAND
Some companies cite issues on the consumer side as a reason for low uptake: lack of awareness of sustainable cotton, a confusing number of labels and the low priority given to sustainability when making purchasing decisions.
Nevertheless, while visible consumer demand is a strong argument to build the business case for more sustainable cotton within the industry, companies may also decide to source more sustainable cotton for strategic reasons, such as securing their cotton supply for the long term or protecting their brand’s reputation.

**IN THE SUPPLY CHAIN: OPACITY, DISCONNECTION AND COST**

**Lack of visibility and engagement of the supply chain**

The textile supply chain is long, complex, fragmented and opaque. Successfully translating demand for more sustainable cotton into actual sourcing depends on the entire supply chain taking part. However, many brands and retailers still have a limited overview of their own supply chain, with most of them stopping at tier 1 or 2. They are therefore denied the opportunity to engage with key suppliers. Spinners, for example, who negotiate with traders to secure supplies of cotton they expect to need - typically based on quality criteria rather than sustainability criteria - are key to unlocking market uptake.

**Lack of supply and demand mechanisms**

Companies have numerous concerns about more sustainable cotton supply chains: disconnect between harvest and production times combined with the unavailability of stocks; extra layers of management and lead times; the challenge of adapting to new suppliers and different business practices; the lack of supply of certain qualities of cotton or from preferred locations. Nevertheless, as the supply of more sustainable cotton has increased, source locations have diversified and growing numbers of suppliers have become aware of major brands’ commitments to more sustainable cotton, making these concerns increasingly less tenable.

**Additional costs**

The additional costs associated with more sustainable cotton are a commonly cited barrier to uptake, whether they are part of the standard system (premiums with Organic and Fairtrade cotton, licensing fees with CmiA, farmer support contribution with BCI) or derive from additional requirements (segregation in the supply chain, documentation management for chain of custody purposes, etc.) or arising from rent seeking by some supply chain actors.

Standard organisations need to pay attention to this issue and be innovative in their responses. Some of these costs will be reduced if the share of more sustainable cotton in the market is increased, on both the supply and demand side, and some may even disappear if more sustainable cotton becomes the new normal.

**CONFUSION AND CAUTION SURROUNDING SUSTAINABILITY SCHEMES**

Companies often report that the existence of so many initiatives with widely diverging requirements, despite having similar founding principles or goals, is confusing. However, this could also be seen as an opportunity for companies to select a portfolio of initiatives that best fits their corporate strategy. After carrying out an analysis of available sustainability options, many companies decide to work with a portfolio of more sustainable cotton initiatives.

Following instances of fraud with Organic cotton, some companies are worried about supply chain integrity as well as the credibility of impact.

While addressing these challenges must be a priority for standard organisations, companies can be instrumental in this endeavour: by taking a leadership position and participating actively in these standard organisations, they can ensure the organisations will be relevant for their business.

**COMPANIES LACK COMMITMENTS AND STRATEGIES**

In the last decade (2005-2015) sustainable sourcing has slipped down the agenda of many fashion brands. A near absence of campaigning on the effects of conventional cotton cultivation, combined with the rising profile of other sustainability issues such as working conditions, building safety and environmental impacts at the manufacturing stage, may have encouraged the perception that cotton farming carries a lower risk of reputational damage than manufacturing (cut and sew, garmenting), especially when cotton farmers are several tiers removed from the company. Companies do not see an urgent need to address sustainability issues in cotton farming by brands and retailers.

While some leading companies have made public and time-bound commitments to use more sustainable cotton, in our experience many brands still have weak commitments or none at all. Without such commitments there will be a
Conclusion

The cotton sector has been through major changes in the last ten years, with rapid growth in the volume of more sustainable cotton on the market. However, most cotton produced globally is still conventional cotton. For more sustainable cotton to break through to the mainstream, production and supply need to increase, and this can only happen if greater demand is generated and leads to more sourcing. Brands and retailers have a crucial role to play as they have the capacity to pull the sector towards greater sustainability by demanding and sourcing more sustainable cotton.

This briefing has highlighted progress made by farmers in growing sustainable cotton, and the generally low uptake of this by companies and brands at market level. Although a few leading companies provide positive examples, making cotton growing sustainable will require a collective effort from all companies involved.

PAN UK, Solidaridad and WWF are monitoring major companies' performance in relation to more sustainable cotton and report on it for the first time in June 2016.

BRANDS AND RETAILERS HAVE A CRUCIAL ROLE TO PLAY AS THEY HAVE THE POWER TO DRIVE THE SECTOR TOWARDS GREATER SUSTAINABILITY

Table 2: Recommendations for unlocking uptake of more sustainable cotton

<table>
<thead>
<tr>
<th>ISSUE</th>
<th>RECOMMENDATIONS</th>
<th>ACTORS</th>
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<tbody>
<tr>
<td>Lack of consumer demand</td>
<td>Campaigning about the continuing problems in conventional cotton production to raise awareness among the public as well as supply chain actors such as retailers and brands.</td>
<td>NGOs</td>
</tr>
<tr>
<td>&gt; Need for better awareness</td>
<td></td>
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<tr>
<td>Opacity, disconnections and costs in the supply chain</td>
<td>Supply chain mapping: only when a company knows its supply chain can it initiate changes to its working practices.</td>
<td>Companies Service providers Standard organisations</td>
</tr>
<tr>
<td>&gt; Supply chain tools and incentives</td>
<td></td>
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</tr>
<tr>
<td>Confusion and caution about sustainability initiatives and standards</td>
<td>Ensure robustness and integrity of chain of custody and traceability systems.</td>
<td>Standard organisations</td>
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<tr>
<td>&gt; Credibility of standards systems</td>
<td></td>
<td></td>
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<tr>
<td>Companies: lack of commitments and strategies</td>
<td>Make public and time-bound commitments to sourcing more sustainable cotton.</td>
<td>Companies</td>
</tr>
<tr>
<td>&gt; Expand and uphold retailers and brands' commitments</td>
<td>Adopt strategies and plans to meet commitments.</td>
<td>Companies</td>
</tr>
<tr>
<td>Confusion and caution about sustainability initiatives and standards</td>
<td>Collect and disseminate sold impact data.</td>
<td>Standard organisations NGOs</td>
</tr>
<tr>
<td>Companies: lack of commitments and strategies</td>
<td>Strengthen collaboration between standards organisations.</td>
<td>Standard organisations</td>
</tr>
<tr>
<td>&gt; Expand and uphold retailers and brands' commitments</td>
<td>Report regularly on uptake of more sustainable cotton.</td>
<td>Companies</td>
</tr>
<tr>
<td>Confusion and caution about sustainability initiatives and standards</td>
<td>Monitor and report on companies' commitments and uptake of more sustainable cotton.</td>
<td>NGOs</td>
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