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***Impact Reporting
and Claims for
BCI Retailer &
Brand Members:
Methodology***

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Introduction

The sourcing of cotton as Better Cotton, via the collection of Better Cotton Claim Units (BCCUs) on the Better Cotton Platform (BCP), generates critical financing from the BCI Retailer & Brand Members to support Better Cotton field projects around the world. BCI measures on-farm results and, where possible, compares them to results of farms in the same area not yet participating in BCI projects. We have now developed a method to link those global results to the sourcing efforts made by our Retailer and Brand members.

The method for impact reporting is based on field “Improvement Factors,” which express the difference between average water use, pesticide use, and profitability for BCI Farmers against comparison farmers not following the Better Cotton Standard, during the same seasons and from the same countries.¹ The Improvement Factors per indicator are then multiplied by the member’s declared volume of Better Cotton sourced to obtain an estimated contribution to BCI’s global results.

The Improvement Factors, or difference between BCI Farmers and farmers not following the Better Cotton Standard:

- Use BCI’s existing farm results data and comparison data
- Conservatively assume zero difference for countries without comparison data
- Are expressed in terms of per kilogram of lint cotton

This is a step toward adapting BCI’s farm level data analyses to better meet the assessment and reporting needs of Retailer and Brand members. Future plans include adding a GHG emissions measure, and as mentioned above, transitioning to measuring change over time.

¹ The Improvement Factors are currently calculated using the comparison data as a proxy measure for effectiveness of the Better Cotton standard system. In the near future BCI plans to phase out the comparison data and measure the change over time for farmers sampled from the same producer groups.

Data Sources

It is important to note that the Improvement Factors are based on BCI's own results data, which is reported by its Implementing Partners who work with cotton farmers around the world. Valuable in terms of quality and quantity, this data demonstrates differences between Better Cotton and cotton produced outside the Better Cotton programme. Still, results need to be interpreted with care. Additional dedicated evaluation is required to attribute those differences, and to what extent, to the programme. BCI engages in this type of evaluation, which complements the annual results data collection at farm level.

The sampling approach adopted to collect Results Indicator data is representative. For farmers grouped in smallholder Producer Units, data of a representative sample is collected on a yearly basis. For an average-sized Producer Unit of 3,500 farmers, data is collected from about 450 farmers: 100 lead farmers and farmers from 10 randomly selected Learning Groups, or about 350 farmers. These 350 randomly selected farmers alone represent about 10% of the population.

Comparison Farmer Data

Implementing Partners (IPs) are responsible for collecting data from a sample of 50-100 smallholder farmers (farmers who are not part of Better Cotton related capacity building programmes and use conventional cultivation methods). Comparison farmers can live in the same village as Better Cotton farmers, in neighbouring villages or even in other nearby locations, as long as they are similar to Better Cotton Farmers. The critical requirement is that their key characteristics make them as similar to project farmers as possible.

Comparison farmers should present similar socio-economic characteristics as Better Cotton Farmers. The characteristics of their farm are also considered:

- number and type of employees
- size
- irrigation system
- general soil fertility
- crops grown
- experience in growing cotton

Getting to the global Improvement Factors

The countries included in the Improvement Factor calculation are those for which comparison data is available; zero difference is conservatively assumed for countries without comparison data. The reasons comparison data is not available for some countries is in the table below.

Country	Comparison data available?	Improvement Factor
China India Kazakhstan Madagascar Mali Pakistan Tajikistan Turkey	Yes	Calculated based on average of absolute figures across these countries. Country weighting factors are applied based on proportion of Better Cotton each represents.
Australia (MyBMP) Brazil (ABR) USA Cotton Made in Africa	No – Comparison data collection has not been possible due to commercial or feasibility limitations.	Assume 0% difference, exclude from global factor
Israel Mozambique South Africa	No – Proportion of BCI Farmers in the country is high; not enough comparable comparison farmers.	

To calculate the global Improvement Factors, the per hectare amounts (already analysed through BCI's results indicator process) are multiplied by the total area to obtain the total irrigation water used, pesticide active ingredient applied, and profits. This is done for Better Cotton and comparison cotton respectively, then the difference between the two is taken.

Example (fictional):

Total water (m³) [(Water per Ha) * (Total Area)] used:

- by BCI Farmers: 233,628,804 m³
- by Comparison Farmers: 277,195,468 m³
- Total Water Savings = -43,566,665 m³

The Improvement Factor = Total Water Savings (m³)/Total Lint (kg) → **-0.48 m³/kg lint**

Thus, BCI Farmers used 0.48 m³ less water on average than Comparison Farmers to produce 1 kg of lint.

Indicators measured

A. Water

Water used for irrigation expressed in Cubic metres / kg lint cotton

B. Pesticides

Amount of pesticide active ingredient expressed in Kilograms / kg lint cotton

C. Profit

Net income / kg lint cotton expressed in USD or EUR

How Retailer and Brand Members can report on their contribution to BCI Results

Member reporting and claims are about the contribution to global benefits of sourcing Better Cotton. This is done using the Improvement Factor -- a quantified benefit per kilogram of Better Cotton - multiplied by the volume of Better Cotton sourced by the Member.

BCI believes a calculation of the global averages is currently the most credible approach. A global average also demonstrates the valuable pre-competitive contribution members make to address global sustainability challenges.

Simplified Equation:

[Improvement Factor per kg of Better Cotton] * [Volume sourced by Member] = Member Contribution

Example (fictional):

1. Estimated average water savings (i.e. Improvement Factor) of 0.1 m³ per kg cotton.
2. Member sourced and declared 3,000 MT of Better Cotton.
3. 0.1 m³/kg * 3,000 MT cotton = 300,000 m³ (79 million gallons)

Example member statements:

'In 2018, an estimated 1.2 billion gallons of water were saved thanks to our sourcing of Better Cotton.'

'In 2018, an estimated 12,000lbs of pesticides were avoided thanks to our sourcing of Better Cotton.'

'In 2018, BCI Farmers benefited from an estimated 3.2 billion dollars in additional profit thanks to our sourcing of Better Cotton.'

NOTE: For detailed information on member eligibility and use of these claims, see the Better Cotton Claims Framework V2.0, or contact the BCI communications team.

Timing

The Improvement Factors **average results over the last three seasons** to smooth out the seasonal variation inherent in agricultural production. The initial version of the factors will be based on data from the 2014-15, 2015-16, and 2016-17 seasons. As a later season of data analysis is finalised, the average will roll over to include it.

The global comparison of results reported will need to be considered as indicative of the direction of travel in terms of the member's contribution to improving how cotton is produced – there will always be a lag time between the seasons for which the latest Improvement Factors are calculated and the year in which the member sourced Better Cotton. This is in part due to the fact that the international cotton season is August to July, thus spanning across two calendar years; also, time is required for data collection, cleaning, validation, and analysis.

The timing for results calculation and reporting:

2019 Reporting

[Improvement Factors 2014-15 to 2016-17] * [Volume sourced 2018] = Member Contribution

2020 Reporting

[Improvement Factors 2015-16 to 2017-18] * [Volume sourced 2019] = Member Contribution

Limitations and other background

- ▶ **Limitation – The Improvement Factors are based on BCI’s own monitoring data; attribution to BCI is not ensured.** BCI’s results data, which for many countries also includes the collection of data from farmers not yet participating in BCI projects (‘comparison farmers’), were designed to provide annual insight into yields and other experiences at farm level. This really is a monitoring activity. The [monitoring of annual results is a description of the factual](#). This monitoring provides insight into **what** happened, but alone cannot tell us **why** or **how** it happened. This is why BCI also participates in deep dive impact evaluations and other research to complement its monitoring efforts. Of note, life cycle assessment has this same limitation.
- ▶ **Limitation – The performance monitoring data is collected and reported by BCI Implementing Partners rather than through external, third-party data collection.** BCI conducts extensive cleaning, validation, and sense checks during the analysis to ensure decent data quality. BCI purposely chose this approach to enable better visibility on results at scale and to encourage learning at local level.
- ▶ **Background – Why not compare to the global conventional cotton LCA?** BCI values the rigour and science-based approach of LCA. It does not cover all important areas of sustainable cotton production, however. Two of the three indicators we are using are not included in LCAs – pesticide use² and profitability. The third, water use, measures only water reported for irrigation; LCA addresses water use more comprehensively, and this is an example of an indicator that can be strengthened when LCA methods are used.

The Improvement Factors are based on BCI’s results data and they make like-for-like comparisons between Better Cotton Farmers and comparison farmers within the same seasons. This is something that is not done when two global LCAs that use a different mix of countries, in different production seasons, and sometimes using different data sources are compared to each other.

BCI does plan to increasingly use the data collected each season to monitor trends in environmental indicators commonly measured by the LCA approach: climate change being one of the most urgently needed along with more sophisticated measures of water use and water quality. This will indicate a step-change for BCI’s impact measurement and will strengthen the cotton sector’s monitoring of progress toward the Sustainable Development Goals.

² Pesticide use data is included as a factor in LCA to measure contributions to certain material flows like water quality. The LCA community has not yet aligned on a common toxicity measure.



More information is available on the BCI website: www.bettercotton.org or by contacting the BCI Monitoring, Evaluation, and Learning team at: Kendra.Pasztor@bettercotton.org.