Published 2022 by Better Cotton/ Delta Project Team

Author: Francesca Mancini

Acknowledgements: The author and the editors wish to thank all the persons and organisations consulted throughout this project for their invaluable support and contribution.

www.deltaframework.org

Disclaimer: The views expressed in this publication are those of the author and do not necessarily represent those of the ISEAL Secretariat, ISEAL members, or donor entities to the ISEAL Innovations Fund.

The project was possible thanks to a grant from the ISEAL Innovations Fund, which is supported by:

Swiss Confederation

Federal Department of Economic Affairs, Education and Research EAER
State Secretariat for Economic Affairs SECO

1 The four Delta Project partners are: Better Cotton, the Global Coffee Platform (GCP), the International Coffee Organisation (ICO) and the International Cotton Advisory Committee (ICAC).
### Contents

1. Introduction 4
2. Stakeholders 4
3. Purposes of the consultations 6
4. Modalities 6
5. Main consultation streams and outcomes 7
   5.1 Four project partners: Better Cotton, ICAC, ICO and GCP 7
   5.2 Cotton 2040 Impacts Metrics Alignment working group 7
   5.3 The ICAC Expert Panel on the Social, Environmental and Economic Performance of Cotton (SEEP) 9
   5.4 International Coffee Organisation (ICO) 10
   5.5 ISEAL Secretariat and its members 11
   5.6 Cotton Research Development Cooperation (CRDC) 11
   5.7 US Cotton Trust Protocol 12
   5.8 Cotton Incorporated (Cotton Inc.) 12
   5.9 Coffee stakeholders 12
   5.10 FAO Global Soil Partnership 13
   5.11 Cool Farm Alliance and geoFootprint teams 13
   5.12 CARE International UK 13
Annex 1. Delta Sustainability Indicators 14
Annex 2. List of meetings and events 15
Annex 3. List of organisations involved 16
Annex 4. Online survey to rank options for indicators 17
1. Introduction

The **Delta Project** is a joint effort of Better Cotton, the Global Coffee Platform (GCP), the International Coffee Organization (ICO) and the International Cotton Advisory Committee (ICAC), and it is supported by the ISEAL Innovation Fund. The Delta Project has brought together the public and the private sectors to develop a framework (the Delta Framework) which aligns sustainability monitoring and reporting in cotton and coffee to the Sustainable Development Goals (SDGs). A primary objective of the Delta Project is to build consensus and a common language around sustainability impacts for the benefit of all actors in the value chain. This uniform approach has promoted, and will continue to promote, system transparency and credibility.

The **Delta Framework** is voluntary and is intended to apply worldwide to any cotton and coffee farming system, with the potential for expansion to other agricultural commodities over time. The first version of the Delta Framework was developed through an intensive consultation process engaging commodity standards, retailers, donors, research institutes, national committees and international agricultural organisations. This process began at the 2019 Better Cotton Conference in Shanghai, where key sustainability impact areas for commodities were first identified. This subsequently culminated with the approval of the draft set of **15 impact indicators** (Annex 1) in January 2020. However, exchanges have continued to take place to date. This has occurred predominantly with respect to technical experts and groups to refine indicators’ methodologies as well as with sustainability standards to coordinate pilot testing activities (Table 1 – Project chronology and key steps).

A total of 17 consultative events have taken place, reaching out to over 120 people representing 54 organisations from the agricultural private and public sectors (Annex 3 – List of meetings and events, and Annex 4. List of organisations involved). The level of stakeholder engagement varied from a minimum of sharing information on the project to a full involvement in the development of the framework. This report outlines the main consultation streams that have taken place and the subsequent outcomes. Additional information on each specific workshop or event is available on the Delta Project website or with the Delta Project Team.

2. Stakeholders

A stakeholder engagement strategy was developed during the project formulation phase. This strategy identified the key institutions and organisations to consult during the research on sustainability metrics and frameworks, and subsequently assisted in the identification of the impact/ outcome indicators for the Delta Framework. Those included, in addition to the four project partners, representatives of sustainability standards and retailers, national commodity committees and councils, public organisations, research institutes, and specialised technical groups.

Physical consultations were often organised as side workshops or side meetings to important sector events. The outcomes of these consultations were fed back to the project stakeholder groups engaged in webinars, emails and calls.
It should be noted that this report does not necessarily represent the opinion of every person or organisation contacted and consulted by the Delta Project team.

The main stakeholders were the four Delta Project partners:

- The International Cotton Advisory Committee (ICAC): an association of governments of cotton producing, consuming and trading countries which acts as the international commodity body for cotton and cotton textiles.

- The International Coffee Organization (ICO): a multilateral organisation supporting exporting and importing countries to improve the sustainability of the coffee sector.

ICAC and ICO provide a high-level forum for all public and private stakeholders in the cotton and coffee sectors respectively; official statistics on production, trade and consumption; and support for the development and funding of technical cooperation projects and public-private partnerships.

- Better Cotton: a global not-for-profit multistakeholder initiative. Its members span the entire global cotton supply chain from farmer organisations to traders, manufacturers, retailers and brands.

- The Global Coffee Platform (GCP): brings coffee producers, roasters, retailers, traders, governments, donors, and NGOs together to multiply efforts, collectively act on local issues, and scale successful sustainability initiatives across the sector.

Other important stakeholders included:

- Cotton 2040, and in particular its working group on Impact Metrics Alignment: a collaborative initiative funded by the Laudes Foundation and convened by Forum for the Future to integrate and accelerate action on critical issues to mainstream sustainably grown cotton.

- Other ISEAL\(^1\) member organisations. ISEAL is the global membership organisation for sustainability standards, such as Bonsucro, Rainforest Alliance and the Sustainable Agriculture Network (SAN).

- Public organisations, including national commodity committees and councils tasked with increasing agricultural sustainability.

- Research institutes and technical expert groups: part of international organisations engaged in promoting sustainable agriculture such as the FAO Global Soil Partnership.

- Brands and retailers interested in sustainability improvements to company sourcing.

\(^1\) ISEAL is the global membership organisation for credible sustainability standards.
3. Purposes of the consultations

Due to the progress made in the development of the framework, the purposes of the consultations evolved over time and it covered the following objectives:

√ Discuss key sustainability priorities and focus areas for the cotton and coffee sectors.

√ Integrate stakeholders’ experiences and perspectives into the development of the Delta Indicators.

√ Evaluate the potential benefits and challenges for the two sectors in adopting the Delta Framework.

√ Foster both commodity-specific and cross-commodity collaborations in the alignment of sustainability metrics.

√ Organise pilots to further evaluate the feasibility and practical implications of integrating the Delta Indicators in an organisation’s M&E system.

4. Modalities

The consultations were held using an array of tools, depending on the most effective methods of communicating with the various stakeholders, which included:

- **Physical workshops** to harness the collective knowledge of participants, to develop a sense of ownership of the framework, and to foster exchanges and collaboration between initiatives.

- **On-line surveys** to elicit in depth feedback on individual indicator options along the three criteria of relevance, usefulness, and feasibility.

- **One-to-one calls** to provide stakeholders with a dedicated space to share and address individual perspectives and concerns, to contribute their personal experience and to discuss interest in pilot testing the indicators.

- **Webinars** as informative sessions to share updates on progress and new resources on specific tools.
5. Main consultation streams and outcomes

5.1 Four project partners: Better Cotton, ICAC, ICO and GCP

The four project partners together represent a broad range of private and public institutions in the cotton and coffee sectors. The expertise provided by their technical committees and teams has brought deep domain knowledge to the consultations, as well as access to international guidelines and protocols at various stages of the project. In addition to the strategic oversight provided by the Delta Project Steering Committee, the following partners’ groups have played a central role in the development of the indicators. They include:

- The Better Cotton Monitoring, Evaluation and Learning (MEL) team which has shared key resources to operationalise the Delta Indicators such as farm-level data entry forms for pesticides and fertilisers, the methodology to calculate the Toxic Load Indicator (TLI) to estimate pesticide risk to the environment and human health, and in-house gender expertise.

- The ICAC Expert Panel on the Social, Environmental and Economic Performance of Cotton (SEEP) which has played a central role in ensuring the overall scientific soundness of the Delta Framework and made a significant contribution to the development of the methodologies for the pesticides and for the economic indicators (see also page 8).

- The Global Coffee Platform (GCP) Secretariat which has ensured that the lessons learned in the development of the Data Coffee Standard were assimilated into the Delta Framework and provided continuous guidance on the data requirements set by the indicators.

- The International Coffee Organisation (ICO) Secretariat which has integrated the Delta Project into its public/private task force to build a more sustainable global coffee industry.

5.2 Cotton 2040 Impacts Metrics Alignment working group

The Cotton 2040 Impacts Metrics Alignment working group has acted as an advisory group representing the sustainable cotton standards, programmes and codes into the Delta Project. The standards members of the group included: Better Cotton, Cotton Connect, Cotton Made in Africa (CMiA), Fairtrade, myBMP, the Organic Cotton Accelerator (OCA), and Textile Exchange. The Laudes Foundation (formerly C&A Foundation) and ISEAL also regularly participated in the working group meetings and activities.

Collaboration between Forum for the Future, which had the mandate to convene the Cotton 2040 members, and the Delta Project Team began with the joint organisation of the first project workshop at the Better Cotton Conference in Shanghai in June 2019. This collaboration has continued through the entire consultative process. The two organisations have had regular coordination meetings as well as several events with the C2040 members, namely two in-person working meetings, two webinars, several team and one-to one calls with the members, and two online surveys.
The Cotton 2040 members have progressively:

- Reviewed and agreed to shared goals and core impact areas for sustainable cotton to guide the indicator set development.
- Provided detailed feedback on the draft indicator options along with the three criteria of relevance, usefulness, and feasibility through several reiterations in meetings as well as through online-surveys (the full report of the on-line survey is provided in Annex 5).
- Exchanged recommendations with the SEEP Panel, thereby establishing an important link between the private and the public stakeholders.
- Supported the final draft set of indicators, expressed interest in pilot testing (part of) the set and discussed the practical implications of adopting some of the indicators for their own organisations.

The members have also identified several areas for continuous collaboration around the harmonisation of:

- Data collection and reporting frequencies;
- Reference timescales;
- Protocols for interpretation of results;
- Aggregation, comparison, demonstration of variability of data quality and data validation;
- Specific claims to be reported, for example progress towards a specific target;
- Control over timing of publication of results.

**Main outcomes of the consultation:**

The collaboration with the Cotton 2040 Impacts Metrics Alignment working group has led to significant outcomes, including:

- **Convergence and consensus over nine shared sustainability goals** that define sustainable cotton production.
- **Increased interest in integrating common (relevant) impact indicators** in standards’ monitoring systems. This interest is articulated in a Memorandum of Understanding that formalises collaboration between the standards to pilot test the first version of the Delta Indicators.
- **Expansion of indicator pilots** to additional locations and standards (supported through extra financial resources leveraged from the ISEAL Innovation Fund and from Laudes Foundation).
Table 1: Shared sustainability goals for the cotton sector

<table>
<thead>
<tr>
<th>Headline impact areas</th>
<th>Environmentally sustainable agricultural practices (SDGs 3, 6, 12, 13, 14, 15)</th>
<th>Decent livelihoods/poverty reduction (SDGs 1, 8, 10)</th>
<th>Social wellbeing, equality &amp; empowerment (SDGs 2, 3, 6, 8, 10, 16)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common goals</td>
<td>Minimise contamination of natural resources</td>
<td>Ensure cotton farmers and workers earn a decent income</td>
<td>Ensure respect human rights on cotton farms, with no forced and child labour</td>
</tr>
<tr>
<td></td>
<td>Protect and regenerate ecosystem services</td>
<td>Make cotton farming economically viable and farmers economically resilient</td>
<td>Ensure healthy &amp; safe working conditions for all farmers and workers</td>
</tr>
<tr>
<td></td>
<td>Reduce greenhouse gas emissions and build resilience to climate change</td>
<td>Alleviate poverty</td>
<td>Enhance equality and empowerment, including in gender, for cotton farmers and workers</td>
</tr>
</tbody>
</table>

In addition to the Cotton 2040 working group, the Delta Project team has also collaborated with another project funded by Laudes Foundation led by KPMG in India. The objective of the project was to develop a user-friendly data collection interface to collect the farm-level data points needed to calculate CO2 equivalent emissions.

5.3 The ICAC Expert Panel on the Social, Environmental and Economic Performance of Cotton (SEEP)

SEEP is the technical panel established by the ICAC Secretariat in 2007 to collect and review scientific evidence on the economic, social and environmental externalities connected with the cotton sector, and to provide recommendations to ICAC member countries on improving the sustainability of cotton production. SEEP has 11 members appointed by their respective Governments (Argentina, Australia, Bangladesh, Brazil, Burkina Faso, the European Union, France, India, Pakistan, Taiwan, Turkey and the United States of America).

In 2014, SEEP has co-published with FAO the "Measuring Sustainability in Cotton Farming Systems" framework which proposes a set of 68 monitoring and impact indicators. Building on this previous experience, the SEEP members have extended their collective knowledge and expertise to the development of the Delta Indicators on several occasions, including a webinar held in October 2019, an online survey in November 2019, a physical meeting in December 2019 prior to the 78th ICAC Plenary Meeting, and through the advice of the Pesticide Working Group (PWG).

The PWG was set up in June 2020 following the recommendations of the physical meeting to improve methodological guidance for the Delta Indicator #1 related to the use of Highly Hazardous Pesticides (HHPs). The PWG has 8 members representing Australia, Argentina, Brazil, West Africa and USA, in addition to the Delta Project Lead Consultant and a Better Cotton representative. The PWG compiled a list of HHPs to be phased-out from cotton and coffee production based on the eight FAO/WHO criteria. The list was developed integrating information from the IPM Coalition database with primary data on the actual use of pesticides provided by the PWG members.
A detailed account of the discussions held in the SEEP meetings can be found in the official meeting minutes on the ICAC website.

The SEEP members have collectively:

- Contributed to the definitions and methodologies of the 15 Delta Indicators, by having:
  - Supported the development of a list of Highly Hazardous Pesticides based on the eight FAO/WHO criteria to monitor indicator #1 and endorsed the adoption of a composite pesticide risk indicator (indicator #2);
  - Highlighted the need to include an indicator on water management in rainfed systems, although a suitable option was not identified;
  - Proposed a methodology for the topsoil carbon content indicator (#4) which combines a yearly visual assessment with periodic laboratory testing every 5-6 years;
  - Recommended the adoption of fertiliser use efficiency to replace fertiliser use indicator (#5) in the future;
  - Recommended not to set a cut-off date for the indicator on deforestation (#6) and to focus on mitigation of any possible risk where High Conservation Value Areas (HCVA) are converted for the purpose of growing cotton;
  - Set the scope and the boundaries of the Greenhouse Gas (GHG) indicator (#7) to measuring emissions during the cotton production process including ginning, i.e. to the bale of lint; and
  - Recommended to adopt a three-year frequency for reporting on economic indicators, following the recommendations from the SDGs.

- Proposed the use of harmonised units for the framework: harvested land, lint, cost of cultivation per hectare and cost of production per kilogram of seed-cotton, harvest year.

Main outcomes of the consultation:
The ICAC-SEEP consultation has led to significant outcomes, including:

- Increased scientific soundness of the proposed indicators’ methodologies;
- The endorsement of the 15 Delta Indicators for testing in the cotton public sector as reported in the Final Statement of the 78th ICAC Plenary Meeting;
- Interest in pilot testing the indicators in additional countries, e.g., Argentina.

5.4 International Coffee Organisation (ICO)
The International Coffee Council, during its 121st Session in 2018, had approved the establishment of a working group to support and monitor the implementation of the Delta Project. Following the physical meeting held in their headquarters in London in November 2019 and considering the ongoing economic crisis in the coffee sector at the time, the ICO Secretariat proposed to integrate activities under the Delta Project with the
implementation of the London Declaration signed in late 2019. This declaration, for the first time, unified major private sector actors across the coffee value chain to jointly implement solutions to address issues related to the price levels, price volatility and the long-term sustainability of the coffee sector.

The Delta Framework with its impact-level environmental, economic and social indicators aligned to the SDGs was a perfect mechanism to support the implementation of the Declaration. The Coffee Public-Private Task Force (CPPTF) was subsequently formed, consisting of 16 private sector members and 16 public sector representatives of ICO Member countries, both importing and exporting.

5.5 ISEAL Secretariat and its members

While the ISEAL Secretariat was involved in the various stages of the framework development, the ISEAL members that are not partners of the Delta Project, were first consulted at a workshop organised as a side event to the annual 2019 ISEAL Members Week in London. The ISEAL members appreciated the focus of the Delta project on comparability across commodities and its strong alignment with the Sustainable Development Goals (SDGs). The members also offered valuable insights into the indicators. Important opportunities for immediate and future collaboration were identified in the following ISEAL-led initiatives:

- The **Living Income Community of Practice** for integration of the indicator in future versions of the Delta Framework;
- The **ISEAL gender group for sustainability standards** for the ad hoc gender indicator being developed for the Delta Framework;
- The **ISEAL certification Atlas project** for further development of the indicator on deforestation, including the integration of land use change and biodiversity metrics.

5.6 Cotton Research Development Cooperation (CRDC)

The Cotton Research Development Corporation (CRDC) is a partnership between the Commonwealth Government and cotton growers, which invest in innovation and transformative technologies to benefit the cotton industry. A primary goal of CRDC is to improve cotton farming sustainability and value chain competitiveness. In collaboration with national and international research institutions, CRDC, undertakes research on how to improve the most significant components of cotton’s environmental footprint, including water and nitrogen management, native vegetation and soil carbon. CRDC and the Department of Primary Industries of New South Wales partners have greatly contributed to the development of the indicators by having:

- Shared the water productivity benchmarking protocols and tools currently in use in Australia and by providing scientific guidance on suitable methods to measure soil moisture in less resourced countries; and
- Provided an overview of the Environmental Toxic Load (ETL) indicator used in national reporting.
5.7 US Cotton Trust Protocol

The U.S. Cotton Trust Protocol is a standard for cotton which verifies production against six key sustainability metrics: land use, soil carbon, water management, soil loss, greenhouse gas emissions, and energy efficiency. The Trust Protocol is overseen by a multi-stakeholder Board of Directors comprised of representatives from brands and retailers, civil society and independent sustainability experts as well as the cotton-growing industry, including growers, ginners, merchants, wholesalers and cooperatives, mills and cottonseed handlers. Consultations are ongoing on a possible alignment with the Delta Framework.

5.8 Cotton Incorporated (Cotton Inc.)

The research team of Cotton Incorporated, in addition to their participation in the Pesticide Working Group, has provided valuable insights to strengthen the methodological guidance of the environmental indicators. Cotton Inc. has also organised a pilot of the Delta Indicators in one research field with the University of Arkansas in 2021.

5.9 Coffee stakeholders

Five online consultations of coffee value chain stakeholders were carried out to assess the potential benefits of Delta Indicators. The consultations touched upon issues of:

- **Data collection** from small-scale farmers, including challenges faced to improve data quality and the need to ensure that data collection is relevant and beneficial to farmers, especially in the case of small-scale farmers;
- **Data ownership**, farmer identity protection through anonymity techniques;
- **Amendments suggested to the indicators**:
  - The economic pillar of the Delta Framework: request to strengthen the indicator set under this pillar to properly capture the factors that influence farm economic performance beyond and above farm income, e.g., price volatility.
  - Inclusion of additional indicators in the Delta Framework, namely energy and waste management under the environmental pillar and employment opportunities for youth under the social pillar.
  - Revision of the wording of the gender indicator to replace the term “women’s empowerment” with “gender equality” which is considered more culturally appropriate;
- **Standardization of yield measurement**;
- **Incentives** for adoption such as benefit of lining carbon trading income, versus burden of reporting to generate direct farmer benefits.

A more comprehensive account of the discussions held is available with the Delta Project team.
5.10 FAO Global Soil Partnership

The FAO Global Soil Partnership (GSP) is a globally recognised mechanism established in 2012. This collaboration established with the GSP has been instrumental to the development of the indicator on soil carbon content (#3). The GSP team was involved from the early stages of the discussion on appropriate metrics for soil health and advised the team on the importance of focusing on soil organic matter as a primary measure of soil health. Soil organic matter is increasingly being recognised for its contribution to nutrient cycling, water retention, biological function and optimising crop growth. The GCP team further supported the development of the soil indicator by having:

√ Informed the indicator description;
√ Provided access to internationally-recognised protocols for visual assessment and laboratory testing of organic soil content;
√ Shared relevant training resources to improve soil management practices and soil assessments with farmers; and
√ Granted their support to data collection and interpretation during the pilot tests.

5.11 Cool Farm Alliance and geoFootprint teams

Several tools have been developed to quantify on-farm greenhouse gas emissions. While the Delta Framework does not recommend a specific tool over the others, conversations have taken place with the Cool Farm Tool and the geoFootprint teams on the data requirements set by these tools to:

√ Describe data requirement for CO2 equivalent calculations, and
√ Understand the scope and complementarity of the two tools, and their eventual suitability for the indicator pilot test.

5.12 CARE International UK

The Delta Framework includes a gender indicator on women’s empowerment to measure progress against women’s leadership, decision-making and access to financial resources (#14). Consultations since March 2020 with gender specialists from Better Cotton, CARE International UK and Genderflection have highlighted the need to develop an ad hoc gender indicator to capture the contribution sustainable commodities are making to gender improvement. As a result, CARE, in close consultation with the Delta Project team, developed a toolkit inclusive of:

√ Training materials: Introducing women’s empowerment indicator, methodology overview, sampling approach, research facilitation techniques, codes of conduct, research ethics, alongside overviews of each data collection tool; and
√ Data collection tools (questionnaire/ interview guides) and analytical framework.
Annex 1. Delta Sustainability Indicators

1. Use of Highly Hazardous Pesticides (HHPs)
2. Pesticide risk indicator
3. Water management (in irrigated farms)
   3.1. Water extracted for irrigation
   3.2. Irrigation Efficiency
   3.3. Water Productivity
4. Topsoil carbon content
5. Quantity of fertilizers used by type and Nitrogen Use Efficiency (NUE)
6. Forest, wetland and grassland converted for crop production
7. Greenhouse Gas Emissions
8. Yield (average)
9. Gross margin from crop production (Living income in future)
10. Price (at farmgate)
11. Proportion of workers earning a legal minimum wage (or above) by sex and by age
12. Incidence of the child labour
13. Incidence of forced labour
14. Women’s Empowerment
15. Number of fatalities and non-fatalities on the farm by sex
Annex 2. List of meetings and events

- 1st Delta Project Consultative Workshop, Better Cotton Conference, Shanghai, 11 June 2019
- Cotton 2040 Impacts Metrics Alignment Working Group in-person workshop, London, 9 July 2019
- Cotton 2040/ Delta Project webinar, 23 September 2019
- 7th meeting of the ICO Statistics Committee, 25 September 2019
- Australian Sustainability Working Group, physical meetings, Brisbane, 18 October 2019
- Cotton 2040 Impacts Alignment Workstream in-person workshop, London, 13 October 2019
- SEEP Webinar, 9 October 2019
- ISEAL presentation and workshop during the ISEAL member week, London, 8 November 2019
- ICO Workshop, London, 7 November 2019
- SEEP physical meeting, Brisbane, 1 December 2019
- ICAC Plenary Meeting, Brisbane, 2-6 December 2019
- 4th Cotton Technical Roundtable, Germany, 18 December 2019
- Cotton 2040 Impact Metrics Alignment working group webinar, 5 February 2020
- Cotton 2040/ ISEAL Secretariat consultations on the preparation of pilots, 13 July 2020
- Textile Exchange Annual Meeting (virtual), 16 April 2020
- Pesticide Working Group 1st call, 25 June 2020
- Cotton 2040 Impact Metrics Alignment working group webinar, 9 September 2020
Annex 3. List of organisations\(^2\) involved

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adidas</td>
<td>Global Coffee Platform (GCP)</td>
</tr>
<tr>
<td>Aid by Trade Foundation</td>
<td>Global Organic Textile Standard (GOTS)</td>
</tr>
<tr>
<td>Better Cotton</td>
<td>Gold Standard</td>
</tr>
<tr>
<td>Bestseller</td>
<td>Good Cotton Practices Association</td>
</tr>
<tr>
<td>Bonsucro</td>
<td>Grower Central Highlands QLD</td>
</tr>
<tr>
<td>Bremen Cotton Exchange</td>
<td>Helvetas</td>
</tr>
<tr>
<td>CARE International UK</td>
<td>International Cotton Advisory Committee (ICAC)</td>
</tr>
<tr>
<td>CIRAD</td>
<td>International Food Policy Research Institute (IFPRI) - Women’s Empowerment in Agriculture Index (WEAI)</td>
</tr>
<tr>
<td>Cotton Made in Africa (CMIA)</td>
<td>International Coffee Organisation (ICO)</td>
</tr>
<tr>
<td>Cotton Research Development Corporation (CRDC)</td>
<td>ISEAL</td>
</tr>
<tr>
<td>Concept4</td>
<td>Laudes Foundation (formerly C&amp;A Foundation)</td>
</tr>
<tr>
<td>Cool Farm Alliance</td>
<td>LEAF (Linking Environment And Farming)</td>
</tr>
<tr>
<td>Cotton 2040</td>
<td>MyBMP</td>
</tr>
<tr>
<td>Cotton Australia</td>
<td>National Cotton Council, USA</td>
</tr>
<tr>
<td>Cotton Incorporated</td>
<td>Argentinian National Institute of Agricultural Technology (INTA)</td>
</tr>
<tr>
<td>Cotton Info</td>
<td>OLAM</td>
</tr>
<tr>
<td>Cotton On, Australia</td>
<td>Organic Cotton Accelerator (OCA)</td>
</tr>
<tr>
<td>Cotton Connect</td>
<td>Organimark</td>
</tr>
<tr>
<td>Fairtrade</td>
<td>Rainforest Alliance</td>
</tr>
<tr>
<td>FAO Global Soil Partnership</td>
<td>Sustainable Agriculture Network (SAN)</td>
</tr>
<tr>
<td>Forum for the future</td>
<td>Solidar Suisse</td>
</tr>
<tr>
<td>FSC International</td>
<td>Solidaridad</td>
</tr>
<tr>
<td>GAP</td>
<td>SustainCERT</td>
</tr>
<tr>
<td>GeoFootprint</td>
<td>Textile Exchange</td>
</tr>
<tr>
<td>GIZ</td>
<td>US Cotton Trust Protocol (USCTP)</td>
</tr>
</tbody>
</table>

\(^2\) Information on the people engaged in the consultations is available with the Delta Project Team.
Annex 4. Online survey to rank options for indicators

The Delta Project Team shared a draft set of 24 indicator options for inclusion in the Delta Framework with the Cotton 2040 Impacts Metrics Alignment Working Group members in mid-September 2019 and launched an online survey.

This Annex provides a summary of the feedback provided by the following members:

- Better Cotton (full survey)
- OCA (full survey)
- CmiA (partial survey)
- Cotton 2040 Technical Adviser (full survey)
- MyBMP (full survey)
- Laudes Foundation (oral on call)
- ISEAL (on living income only)

The indicators proposed were considered in principle relevant to cotton production with the exception of waste management.

Five indicators were considered very relevant and scored at the top end of the scale on all criteria. These indicators are recommended for inclusion in the final core set:

- **Use of Highly Hazardous Pesticides (HHPs):** kg active ingredients / ha (and/or a composite pesticide indicator)
- **CO2 emissions:** kg CO2e / kg lint (and/or per ha)
- **Average yields:** kg cotton lint
- **Price at farmgate:** USD / tonne of cotton lint (expressed in % of change)
- **Proportion and number of children engaged in child labour** by sex and age

Thirteen indicators were considered relevant to cotton production, however, a need for further consultation was expressed to make a final selection. Based on the overall quantitative and qualitative feedback, some indicators were recommended for inclusion in the final core set (in bold), whilst others would need further consideration or revisions:

- All water indicators were considered relevant and very important for farmers, but prohibitively expensive. The working group would need to agree on which aspect(s) of water management the framework should focus.
  - **Water Use Efficiency for irrigated farms:** USD / m3, OR
  - **Quantity of water used for irrigation:** m3 / ha, OR
  - **Water Crop Productivity (WCP):** Lt / kg of cotton lint
• All soil indicators were considered relevant and contributing to multiple sustainability goals, however, none alone was considered a good measure of soil health. It was recommended to monitor soil organic matter until a better option is identified, and two indicators were retained in the set of options.
  - Practices for the prevention of soil erosion and loss of fertility
  - Fertiliser used by type kg/ha
  - Soil health

• On biodiversity, the indicator on land conversion was retained and this, combined with a pesticide composite indicator to monitor environmental impact, is expected to quite comprehensively address the main impact of cotton production on biodiversity.
  - Natural vegetation/forest converted for cotton or coffee production / ha

• On climate change, farmer adaptation activities, despite not being an impact level indicator, is rated very high on all criteria reflecting the high relevance of climate change to the sector.
  - Farmers’ climate adaptation activities

• On the income/ livelihood indicators, there is a large consensus that living income would be the best metric to capture contribution to decent living. However, the methodology is still under development. If living income cannot be included at this stage, profitability has been proposed.
  - Average actual income from cotton or coffee production (Average income has been replaced with Gross margin in the revised core set)
  - Living income

• The indicator on education has been used as a proxy for child labour in other sectors. This indicator has rated moderately well across all criteria, but consistently lower than the child labour option, exception made for the cost factor. Considering the relevance of child labour to the cotton sector, it was proposed to retain only the child labour indicator in the final core set and investigate ways to decrease the cost of data collection.
  - Proportion of children receiving education at the appropriate level

• The proposed indicator on “compliance with labour rights” needs reformulation. An option for consideration is to focus on Wages and Forced Labour only. An alternative approach could focus at ‘practice’ level on implementation of due diligence and/or management systems required within certification schemes.
  - For hired labour: Compliance with labour rights, including minimum wage

• The proposed indicator on work safety does not capture all aspects, and it is not expected to meet stakeholders’ needs. It therefore needs revisions.
  - Number of fatalities and non-fatalities on the farm
Six indicators were considered not relevant, or not useful, or/and prohibitively expensive or the least preferred option among those proposed and therefore eliminated from the revised core set:

- **Not relevant:**
  - Solid waste

- **Not useful or prohibitively expensive:**
  - Biodiversity (Impact on ecosystem services and/or flag species) - Biodiversity remains a core sustainability area, but a better indicator needs to be identified.
  - Proportion of households living below the national or international poverty line
  - Gender composite indicator which includes various aspects of gender equality - Gender remains a core sustainability area, but a better indicator needs to be identified. There is need to agree on which aspect is more relevant to the cotton sector among: e.g., leadership/management, access to resources and land, etc.
  - Food security: Total number and proportion of household members food insecure (with calories intake below the international norm). The food security indicator has received mixed feedback, with a recognition in some cases that food security is relevant to cotton production; however, it seems that only a limited experience in monitoring this indicator is currently available in the group. Living income, if adopted, would address a key determinant of food security which relates to cotton farming practices. The indicator has been deleted from the revised core set for the time being.

- **Least preferred options among those included in the core set:**
  - Pesticide used per type kg active ingredients/ha

The individual average scores (given by working group members in the survey) for the three criteria as well as the total score (TOT = sum of all scores) were calculated for each indicator.

- Relevance: Attribution (question 1.3 in the survey)
- Usefulness: Global commitments, stakeholders’ needs, comparability/aggregation (questions 3.1, 3.2, 3.3)
- Feasibility: Costs (question 4.2)
Based on the total score, the indicators we classified using a colour code:

<table>
<thead>
<tr>
<th>Indicators options (original set as circulated to members)</th>
<th>Question No.</th>
<th>TOT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Average scores</strong></td>
<td>1.3</td>
<td>3.1</td>
</tr>
<tr>
<td><strong>Total score</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 - 4 (excluded)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Impact area**

- **Pesticide use**
  - Pesticide used per gr kg active ingredients/ha
  - Use of highly hazardous pesticides kg active ingredients./ha

- **Water use**
  - Water use efficiency for irrigated farms USD/m3
  - Quantity of water used for irrigation m3/ha OR
  - Water crop productivity (WCP) Lt/kg of cotton

- **Soil health**
  - Practices for the prevention of soil erosion and loss of fertility
  - Fertilizer used by type kg/ha
  - Soil characteristics

- **Biodiversity**
  - Biodiversity (Impact on ecosystem services and/or flag species)
  - Natural vegetation/forest converted for cotton production/ha

- **Climate change**
  - CO2 emission kg CO2e / kg lint
  - Farmers climate adaptation activities

- **Waste management**
  - Solid waste

- **Yields**
  - Average yields Kg lint /ha

- **Income**
  - Average actual income from cotton or coffee production
  - Living income

- **Price**
  - Price at farmgate USD/ tonne of cotton lint

- **Poverty**
  - Proportion of households living below the national or international poverty line

- **Food security**
  - Total No. and % of household members food insecure (with calories intake below the international norm)

- **Child labour**
  - Proportion and number of children engaged by sex and age

- **Education**
  - Proportion of children receiving education at the appropriate level

- **Gender**
  - Gender composite indicator which includes various aspects of gender equality

- **Labour/ Decent work**
  - Compliance with labour rights, including minimum wage

- **Work safety**
  - Number of fatalities and non-fatalities on the farm