The New 4C Risk Mitigation – Practical Solutions to Address Sustainability Challenges in Coffee Supply Chains

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Introduction 4C Services

Challenges of Sustainable Coffee Production

4C Solutions for a Sustainable Coffee Sector

Conclusions
01 Introduction 4C Services
4C is a result of a multi-stakeholder initiative, and today a leading sustainability certification scheme for the coffee sector

- 4C coffee produced in 25 countries
- 400,000+ farmers are producing 4C coffee
- More than 1.8 million tons coffee certified in 2018
- 25 cooperating certification bodies
The 4C Code of Conduct applies strict criteria to coffee production and processing, based on the three dimensions of sustainability.

4C enables coffee farmers to participate in sustainable markets and to benefit from improved agricultural practices, higher economic outcomes, fair working conditions and the preservation of precious landscapes and biodiversity.

The central pillar of the 4C system is an Internal Management System and a detailed Improvement Plan, that focusses on continuous improvement through support and training from the Managing Entity.
4C is a comprehensive standard with high economic, social and ecological requirements

Percentage of indicators covered against all standards

Source: ITC, Sustainability Map, www.sustainabilitymap.org, as of 30 May 2019 (Review ongoing to cover 4C developments)
4C coffee strictly preserves primary forests and protects the precious natural resources of our planet.

4C uses latest remote sensing technologies and tools to support risk assessments and verify compliance with land use change criteria.
4C stands for climate-friendly coffee. Pilot carbon footprint projects are being conducted

Under 4C, the carbon footprint from coffee production can be reduced by:

✓ No emissions from land use change
✓ Improved agricultural practices
✓ Reduced fertilizer application
✓ Soil conservation
✓ Efficient energy use
Leading brand owners have been involved in the development of 4C and trust 4C compliant coffee
Challenges of Sustainable Coffee Production
## Major sustainability challenges in coffee production addressed by certification schemes

<table>
<thead>
<tr>
<th>Environmental</th>
<th>Social</th>
<th>Smallholder</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Deforestation</td>
<td>▪ Low income</td>
<td>▪ Low income</td>
</tr>
<tr>
<td>▪ Loss of biodiversity</td>
<td>▪ Illicit labor, child labor</td>
<td>▪ Low yields</td>
</tr>
<tr>
<td>▪ Water pollution through wet mills</td>
<td>▪ Unfair labor practices</td>
<td>▪ Lack of market access</td>
</tr>
<tr>
<td>▪ Inefficient use of irrigation system</td>
<td>▪ Lack of access to education, housing, food, medical services</td>
<td>▪ Poor agricultural practices</td>
</tr>
<tr>
<td>▪ Waste disposal spoils water bodies and soils</td>
<td>▪ Poor housing conditions of plantation workers</td>
<td>▪ Lack of environmental consciousness</td>
</tr>
<tr>
<td>▪ Use of hazardous pesticides contaminates environment and pollutes water</td>
<td>▪ Health &amp; safety risks through chemical application</td>
<td></td>
</tr>
</tbody>
</table>
The impact of sustainability certification is limited to only the proportion of agricultural products that enter the certified value chains

- **Expectations** regarding the impact of certification should be **fair**
- Certification’s impact is limited to the **share of certified production**:
  - If e.g. less than 3% of soybean production is certified, certification can not impede deforestation in South America
  - If only 11% of forests are certified, nobody should expect that schemes like FSC and PEFC are able to stop deforestation
  - Coffee is the commodity with the largest share of certified cultivated land. However, there is still more than half of the production area not covered by certification
- Certification can not compensate for **historically low coffee prices** with its devastating impact on small family farms
- Low commodity prices and low or none price premiums do not **incentivize sustainable production** and certification
- **Market transformation** with sufficient incentives for sustainable supply is required to achieve widespread impact on the ground

Source: *The State of Sustainable Markets 2018 (ITC)*
In many cases, farmers do not receive sufficient price premiums. Implementation costs are not compensated by the market

- **Large volumes** of certified coffee is **available**, but only a portion of it is purchased as sustainable with a price premium

- Certified sustainable production is often seen as a **pre-condition for market access**. No additional incentives to be paid for a sustainable production which should be standard

- The perpetuum mobile for **market transformation** can be offered by innovative and impact oriented certification:
  - Effective solutions to **reduce audit and certification costs** and to increase **acceptance**, through e.g. innovative tools and technologies for risk assessment and audit conduction
  - Identify and **address challenges** such as climate adaptation for small and medium sized farmers. Carry out projects and implement lessons learned and **recommended practices** in the sector
  - Contribute with the standard and related activities (e.g. trainings, projects) to **improvements in key performance indicators** of farms, in particular of **smallholders**. This should result in **higher yields and higher income**
03 4C Solutions for a Sustainable Coffee Sector
Based on feedback from key stakeholders, 4C implemented measures to improve system procedures, audit guidelines and risk assessment

| Review of 4C audit documents and procedures to facilitate sound and effective audits | Better internal processes for registration, monitoring, and fast certification decisions | Positioning 4C as a recognized reliable standard in the market |
| Improved communication with system users, coffee sector as a whole, and interested stakeholders (e.g. new website) | Comprehensive trainings for auditors, system users and stakeholders |
| Improved risk assessments, e.g. by using remote sensing data and biodiversity databases | Carbon footprint calculation, mapping of supply chains, smallholder solutions on customer demand |
| | Integration of requirements of key accounts in the markets, 4C units, supply chain operators, and auditors |
The new 4C checklist facilitates improved auditing processes by providing clear guidance through the criteria of the 4C Code of Conduct

- Specified checklists for the Managing Entity, Producers, Traders and Processors support focused auditing and saves time and costs
- Clear guidance per criteria within the checkbox allow clear understanding of the respective indicator and evaluation decision

<table>
<thead>
<tr>
<th>Principle</th>
<th>Name of principle</th>
<th>Indicator</th>
<th>Verifying Point - ME</th>
<th>Verification guidance</th>
<th>Answer (Yes/No/NA)</th>
<th>How it was verified? (Visual, Doc, Interviewed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IW 3.2</td>
<td>Name and contact details of ME, Appointed responsible person for IVG and 4C Code implementation</td>
<td>Name and contact details of the ME, main role and responsibility within the 4C list, Appointed personnel(s) taking care of the IVG and 4C Code of Conduct implementation, their roles, responsibilities and competences</td>
<td>Did the audit and check indicate correct details of the IVG, including persons in charge, physical address, roles and responsibilities related to the implementation of 4C Code?</td>
<td>Document with relevant data</td>
<td>Major</td>
<td>Major Major Major Major</td>
</tr>
<tr>
<td>IW 3.4</td>
<td>Monitoring Business Partner Management (BP), Updated flow chart (FC)</td>
<td>Completed and up-to-date BPM listing all BP and their basic data: An organizational chart of the 4C unit including clear product flow with key functions of each type of BP within the 4C unit</td>
<td>BPM (type) and up-to-date BPM and FC, including the flow of products and key functions of each type of BPM</td>
<td>On-site audit and flow chart (FC). Both documents must be consistent. Percentage of BP producers with available pro- coordinators: below 50% (Low), above 50% and below 80% (Medium), above 80% (High).</td>
<td>Major</td>
<td>Major Major Major Major</td>
</tr>
<tr>
<td>IW 5.5</td>
<td>Monitoring AT, updated individual assessment of BP, Personal conformity assessment of BP against the 4C Code of Conduct</td>
<td>An aggregated self-assessment before verification</td>
<td>BP (type) and personal conformity assessment of BP against the 4C Code, including on-site evaluation of a representative sample of BP and documented results</td>
<td>Documented self-assessment, including data collection method (interviews, visits, workshops, field days, etc.), assessment of BP needs and risk assessment. Map showing the location of each BP or at least the region where BPs are located. Internal audit reports for the visited BP. Written procedure with decisions taken.</td>
<td>Major</td>
<td>Major Major Major Major</td>
</tr>
</tbody>
</table>
Reduce bureaucracy through following a risk-based approach and implementing tools and technologies to make audits more effective.

4C uses a tool based on remote sensing and GIS technology for site- & region-specific sustainability risk analysis.
High resolution satellite imagery and the EVI time series can be used to verify the conversion from forest to coffee plantation.
Most of the 400,000 4C certified farmers are smallholders. 4C works on solutions to ease their integration into certified supply chains.

- Precondition for any certification and improvement efforts is to know about smallholder location and field size.
- Easy collection of field polygons with 4C field recorder app.
- Upload polygons for an automatic sustainability risk assessment.
- Interactive Smallholder Management Tool enables efficient data management.
- Analysis of sustainability criteria and visualization of smallholder data.
- Starting point for improvement projects with e.g. financial institutions.

Effective and cost-efficient solution to impact-oriented certification.

With the 4C Field Recorder App, exact field coordinates and plantation outlines can be tracked and used for further detailed assessments.

A fast, easy and reliable automated risk assessment of 4C Units against critical sustainability criteria can be conducted.
Mobile tracking app based on innovative technologies to ensure traceability

4C Tracking App, which allows to:

- **Trace back** coffee to smallholder level
- Identify the **amount of delivered coffee** per smallholder
- Identify **amount of sustainable produced coffee** (e.g. check according to environmental criteria)
- Individual **quantities** are **automatically transferred**
- Information is uploaded to the **database** and linked to other smallholder data
- Data accessible in a user-friendly **Traceability Dashboard**
- **Monitor** and analyze volumes of coffee
- **Assess** the amount of coffee delivered to the mill
- **Identify** and avoid **frauds**
Verification of social criteria is often difficult, but is crucial for the credibility of a certification

- 4C implemented a solution to identify farm labour abuses through an easy-to-use tool verifying 4C farmers against the Brazilian Transparency List of Contemporary Slave Labour
- The tool is mandatory for auditors and serves as surveillance tool for 4C to ensure that 4C Units are free from labour abuses

### 4C Services Transparency List Tool

**Description**
This tool compares the entries of the of 4C Business Partner Map with the entries of the Transparency List on Contemporary Slavery in Brazil, published by the Brazilian Ministry of Labour and Reporter Brazil, using National ID Numbers and Names as identifiers.

<table>
<thead>
<tr>
<th>Result Summary:</th>
<th>Number of matches:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matches are found! Please check which farmer is</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Copy the Business Partners' National ID Numbers (CNP,JCPF) from the BPM (column B) or Names (column B) here:</th>
<th>Results</th>
<th>Match with 2019_04 list</th>
<th>Match with 2019_01 list</th>
<th>Match with 2018_10 list</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helvécio Sebastião Babistas</td>
<td>Risk Farmer - Please conduct further</td>
<td>On the 2019_04 List</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Amaúlde Celestino Cogo</td>
<td>Risk Farmer - Please conduct further</td>
<td>-</td>
<td>On the 2019_01 List</td>
<td>On the 2018_10 List</td>
</tr>
<tr>
<td>884 400 954-49</td>
<td>Risk Farmer - Please conduct further</td>
<td>On the 2019_04 List</td>
<td>On the 2019_01 List</td>
<td>On the 2018_10 List</td>
</tr>
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Traceability along supply chains can be supported using blockchain for the reliable transfer of data, but it cannot replace verification through on-site audits.
4C trainings are an important pillar of capacity building in the coffee sector – Last year, 4C started its new training program for auditors and system users.
4C is implementation orientied and has started to carry out pilot projects which should benefit coffee farmers and the sectors

- Certification schemes that **directly engage farmers** are effective and have the possiblity to reach farmers and plantation managers globally
- Certification is the **vehicle** to get farmers informed, involved and on the sustainability track
- Examples of **4C pilot projects**:
  - Soil health program supported by on field survey and soil lab tests
  - Land use change maps to protect forests and natural resources using satellite image technology
  - Mapping of biodiversity hot spots
  - Measuring carbon footprint of coffee
  - Climate change adaptation strategies for coffee farmers
  - Traceability and supply chain mapping
- **Results** of the projects will be **implemented** in the 4C standard
- **Participation is still possible** for interested parties
Watch out for the 4C logo in your store and support sustainable coffee production and local communities.
04 Conclusions
Growers and cooperatives appreciate the positive impact of the 4C program – Example Colombia (I)

“I have been always working on our family farm. I never visited a school. As we participate in the certification programs of our cooperative, we received a water treatment plant. Being enrolled in the 4C certification program increases our awareness and education about the farm and coffee labor.”

Diego Jaramillo Díaz, Los Naranjos, Jardín
Impact in coffee growers reality – Example Colombia

- Farm capacity building
- Farm record keeping
- Action Plan Improvement
- Effluent treatment plant
- Shadowing, biodiversity
- Improving livelihood
- Field monitoring
Way forward

- Certification is not the silver bullet to solve all problems of the world, but it has proven that it can **achieve change on the ground**
- **Higher demand** for certified products would set incentives for change
- Crucial for certification schemes is to understand their role and their limitations and to **continuously work on achieving increased impact**
- 4C is aiming to constantly improve its system to be a **thorough and effective certification system** for the entire coffee sector
- 4C is **innovative, applying modern technologies to support the certification process**, to ensure credibility and to safeguard the brand value of its users
- **Stakeholder involvement** is crucial for this process. Become involved in the 4C family!
Many thanks for your attention!

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