

# THE POWER OF DATA - BEYOND TRACEABILITY

**Key findings of a SWISSCO member event on  
traceability held on May 24th, 2022 in Zurich**

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# Introduction

Product traceability means knowing the origin, the people, the enterprises, and processes behind a product. However, the reasons for pursuing product traceability can vary depending on the different actors in a value chain and their respective roles. Companies, consumers, civil society organisations and government authorities might all be in favour of enhancing traceability, but with different motivations: to improve the supply chain management, to better mitigate risks in safety, quality and sustainability of production, to track payments to farmers, to ensure compliance with sector policies and sustainability requirements, to improve the living condition of farmers, to be assured of the safety and/or sustainability of the product etc.

But what is in it for the most upstream and often most vulnerable stakeholder in the cocoa value chain, the cocoa farmer? What is a farmer's motivation to favour more traceability? **How can the information and data collected in the process to enhance traceability be used to benefit the farmer, and improve farmers' and their families' lives?**

Those questions motivated conducting an event on traceability and transparency in the cocoa value chain, amongst SWISSCO members on May 24, 2022 in Zurich. In preparation for the event, Gabriella Crescini conducted interviews with several SWISSCO members, representing different actors along the value chain. The goal of these exchanges was to collect the different viewpoints and identify the individual and common constraints and opportunities that the collection of data for traceability creates along the value chain and thus where the contributors see the main levers for action.



This report summarizes the aggregated key findings of the interviews and the event. To illustrate actions already taken by some actors to improve data collection and thus traceability and its benefits for farmers and their families, **mini cases** were compiled that can be found on the SWISSCO website. The cases are formulated in the providers' own words.

It must be noted that this is by no means a complete list of constraints and benefits but rather a small collection identified in interviews with several SWISSCO members.

# Constraints for a fully traceable value chain

There are many constraints referring to data collection for a transparent system and traceable cocoa, and these constraints vary only slightly between the countries of origin. Based on the interviews, the constraints can be clustered into three sections: technical, educational, and situational.

## **Technical**

Most members highlighted constraints for accurate and reliable data collection that are based on access (or lack thereof) to the internet, electricity, and mobile devices for the farmers or even collectors. Furthermore, data verification and triangulation through legal or binding documents or registrations is often not possible as no such verifying documents or transactions are available.

An additional technical constraint refers to the issue that farmers and farmer cooperatives often sell their cocoa to multiple traders. Based on the respective buyer's/manufacturer's demands, these traders have different requirements on what data is needed from the farmers. This leads to the fact, that those farmers/cooperatives need to provide their information multiple times in slightly different forms to oblige these demands.

## **Educational & Situational**

Farmers' illiteracy is a big constraint as it demands data collection to be done by a third party. Every interpretation of statements is prone to faults. Furthermore, not only the interpretations but already the answers of farmers are often fault-prone due to a variety of reasons, e.g. fear to disclose information, wrong understanding of the question, language barriers, attempting to meet expectations from the interviewer etc.

Due to the manner of the data collection and the number of actors involved along the cocoa value chain, data consistency is often compromised by human action. An example mentioned during the interviews describes the following situation: "When the middleman arrives at the collection point or warehouse and is asked to identify the farmers he has collected from in a list of 'certified' farmers expected to deliver to this trader, the temptation is high for the middleman to just point to any one of the listed farmers". But also, as many cocoa growing regions are in very rural areas and thus not easily accessible, the cocoa has to be transported and handed over to different people before arriving at a collection point. Even if cocoa bags were labelled at the origin, these labels are often handwritten adhesive stickers that can get easily lost.

To collect data accurately, with the aforementioned constraints, is cumbersome and therefore costly. To overcome this constraint, data collection responsibility is often delegated to the management of farmer cooperatives or collectors. Even if the trustworthiness of these intermediaries is given, situational constraints can interfere with the need for accuracy. One trader for instance mentioned that he doubts that the data on family size and children's ages is usually accurate, as he witnessed that the cooperative management often does not even know/verify all the names of their delivering farmers.



# Benefits beyond transparency that can be generated

All interviewees mentioned that a transparent value chain will identify shortcomings and faults in the value chain (thus posing supply chain risks for the involved companies) and provide starting points for actions for improvement. Additionally, traceability builds trust with the consumers and validates sustainability claims.

In addition to the pure benefit for retailers, manufacturers, and traders to be able to showcase a fully traceable value chain, the interviewees identified several aspects of how traceability can also benefit the producers. These were clustered into the following categories:

**(i) Communication, understanding and trust**

**(ii) Technical assistance and quality improvement**

**(iii) Income diversification & food security**

**(iv) Healthcare**

**(v) Human rights and social security**

Many of the interviewees' organizations/companies have already taken measures for improving the situation based on the learnings they generated.

## Communication, understanding and trust

The closer the interaction is with the farmers, the greater the chance to develop a two-way communication and therefore to develop joint solutions for existing constraints. Further, it allows for integrating the farmers' voice and thus leads to better anchored and bottom-up supported measures. Such actions build trust and may thus result in more truthful disclosure of information.

## Technical assistance and quality improvements

Data is the base for technical assistance and improvements on good agricultural practices, input needs, and pre- and post-harvest treatments. Some of the traceability solutions on the market evolved from digitized farm management tools. The idea to use farmer data not only for technical assistance but to add services to the benefit of the farmers beyond production has been around for more than a decade. Beyond providing product-related information, the data can be utilized for household budget calculations and to build up a track record for access to finance. Hard money still causes a problem in the widely dispersed and often rural cocoa regions. Even though physical cash is often preferred by producers, mobile payment systems would be much safer and could play an important role in the efforts for more transparency. Digital data systems used for such digital money transactions could at the same time have a positive effect in creating more transparency as they can at the same time verify farmgate price transactions and premium disbursements.

## **Income diversification & food security**

A more transparent system allows to have better insights into the whole farm composition and could help to identify additional income opportunities and information on nutrition at farm level. The relationship and connection established through the data collection can also be utilized to mitigate farmers' risks by providing information that goes beyond cocoa such as support for crop diversification or husbandry to enhance food security and diversify household income. Middlemen can have an important role by providing 'access to markets' for those farmers in remote areas (transporting goods, providing access to digitalization etc.).

After more than 20 years of discussion about cocoa prices, whereas at the same time those prices were in reality not increasing but decreasing, the need to generate additional incomes is evident. The cocoa industry however has a strong interest that these additional incomes do not jeopardize cocoa production.

One example of a successful by-product that generates real additional income with little more labour, is the further processing of the pulp to juice, concentrate and powder.

Furthermore, the global shift to price carbon potentially opens the door for new opportunities to enhance farmers' income. Measures related to promoting reforestation, agroforestry, and overall landscape models could be used to not only contribute to enhancing crop diversification and thus farmer's resilience but also to include carbon calculations. Corresponding payments for ecological services (PES) could benefit from or be based on well-established traceability tools. However, so-called PES models require high data quality. So far, there are few successful examples where PES models are part of integrated traceability approaches. Questions arise regarding the relationship between costs and returns, as well as the basic requirements for the necessary data.

## **Healthcare**

Access to reliable and affordable healthcare is still a major problem in many cocoa-producing communities. And thus, cases of maladies, complicated childbirths, or accidents create a severe financial risk for the farmer. By thinking outside the box, one SWISSCO member created a solution to the problem of data collection by creating an incentive for farmers to provide their data in return for being registered into a healthcare system. Providing healthcare as part of the premium has created additional trust and reliable data (as all family members and their farms need to be registered to be covered by the insurance). The case can be found in the mini cases.

## **Human rights and social security \***

Having reliable data on plot, household and family size levels also allows to indicate at an early-stage households or farms that are in jeopardy for child or forced labour. Furthermore, a trustful relationship can be utilised for identifying other social (and health) risks. Nutrition and literacy can be monitored, and the data can be used for advocating solutions.

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*\*Social security is defined here as the security that the society furnishes through appropriate systems against certain risks to which its members are exposed.*

# CONCLUSION

SWISSCO members have set themselves the target that by 2030, the entire physical flow of products containing cocoa into Switzerland (beans, butter, mass, finished products, etc.) should be traceable based on sustainable agricultural production. SWISSCO member companies are committed to promoting and gradually enhancing “first-mile traceability” as a means to underpin the growth perspectives of farmers and to increase the level of transparency for consumers. Furthermore, SWISSCO member companies strive for adequate levels of traceability along the supply chain. This includes the considerations of benefits for consumers and farmers alongside the efficiency and practicability of pursued traceability measures.

In an open and constructive discussion, SWISSCO members discussed the constraints and potential benefits for the cocoa farmers and their families at the event in Zürich. A key discussion at the event revolved around the question of how to incentivize farmers and farmer cooperatives to diligently have their data registered in the respective traceability systems. This could bear great potential to create a win-win situation for all involved stakeholders as the motivation of the farmer is key to creating a real measurable impact regarding improving first-mile traceability.



*Photo of the Traceability Event in Zurich on May 24, 2022.*

# CONCLUSION

Apart from exchanging ideas and good practices on improving the data quality for enhanced traceability and transparency, while benefitting farmers, the attendees of the event touched upon different topics which all point to the need for further discussions.



Firstly, the discussion clearly displayed that currently, each company has its own traceability solution and due to competitiveness reasons, collaboration is rather scarce. However, there is a big potential for stakeholders along the whole cocoa value chain, to strengthen collaboration on a precompetitive basis regarding the development and alignment of metrics and good practices of traceability tools.



Secondly, traceability is not only a supply chain issue but also requires other sectors to join the discussion and contribute with their expertise. The research sector for instance could play an important role in improving the quality and interpretation of data while NGOs are certainly in a good position (as a “neutral convener”) to convene actions at the landscape level. The experiences of the Sustainable Cocoa Production Programme (SCPP) in Indonesia (see slides from Ross Jaax) are a good practice example for such a systemic cross-sectoral approach to enhance traceability.



Thirdly, it was pointed out that while strengthening actions to enhance traceability, the issue of data protection, ownership of the data, and informed consent in providing the data (rather than not having a choice) must be addressed.



And lastly, SWISSCO members pointed out that on the one hand, collected data must be accurate and accountable, starting at the producer level. If data at that level is not collected and verified properly, all consequent actions are compromised. And on the other hand, more downstream stakeholders must become “data smart” to make the most out of the existing data rather than accumulating large datasets that are of no/little practical use.

Overall, there was a clear sentiment amongst the members that follow-up discussions are needed. The SWISSCO Coordination Office will ensure that over the course of the coming months, more opportunities for peer learning and exchange will be facilitated.