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RESEARCH ARTICLE

How researchers are getting Ethiopia's coffee ready for new EU rules

The new EU Deforestation Regulation is raising the standards for coffee exports worldwide. This is having a particular impact on Ethiopia, where millions of people make a living from coffee cultivation. A research project led by the University of Bern is working with local partners to develop systems for proof of origin – so small-scale farmers can benefit from sustainable production as well.

Baristas around the world swear by Arabica coffee. Favoured for its fruitiness and complex acidity, it originally comes from the southwestern plateau of Ethiopia. Estimates suggest that over five million smallholder farmers currently grow and harvest Arabica in Ethiopia. This country in the Horn of Africa maintains a centuries-old coffee culture, with traditional ceremonies and methods of preparation. Almost half of the Arabica harvested in the country is consumed domestically. The rest is exported, with around a third ending up in Europe, including Switzerland – one of the top ten countries in the world for per-capita coffee consumption. On top of that, numerous Swiss companies are active in the coffee sector, in the areas of logistics, processing, marketing and trade.

High quality, meagre income

In Ethiopia, Arabica coffee usually grows under shade trees. Around 10 per cent comes from protected forests. Nearby communities have government permission to pick the small, red coffee cherries from the trees as long as they don't interfere with the forest ecosystem in any other way. Production in managed forests and agroforestry systems accounts for 85 per cent of coffee cultivation. With agroforestry, coffee is usually grown in combination with other fruits such as mango, papaya and avocado, as well as spices. Only five per cent of Ethiopian Arabica is grown in monocultures on commercial plantations. "That means our coffee is of very high quality," says Amare Bantider, head of department at the Water and Land Resource Centre (WLRC) in Addis Ababa. "It is grown without chemical fertilisers or pesticides." Bantider is part of the interdisciplinary SOR4D project "CARE for value and sustainability". Researchers from Ethiopia and Switzerland are jointly analysing production conditions and value chains and showing how new international regulations can be used in the coffee trade to strengthen the role of producers in the global market.

On raised drying beds in Yirgacheffe, washed coffee dries evenly while workers sort out defective beans by hand. *(Photo: Desalew Getnet)*

Although forest and agroforestry coffee from Ethiopia is a premium product and generally organic, it is often traded at regular market prices without certification or proof of origin. However, because coffee in Ethiopia is not harvested by machine, as is often the case in Brazil and Vietnam, the largest producing countries, the yield is significantly lower. "Today, most producers live in poverty and cannot make a decent living from coffee cultivation," says Bantider. He adds that this would still be the case even if farmers received a premium through certifications such as the Rainforest Alliance or organic labels. The reason for this is that the biggest profits do not accrue to producers. This is partly due to an opaque system of Ethiopian intermediaries and the relatively high margins skimmed by importers and processors. Despite farmers' poverty, this cultural asset remains an economic lifeline in Ethiopia: between 30 and 35 per cent of export earnings come from coffee sales, which are the most important source of foreign currency.

Stronger EU regulation: an opportunity

"The EUDR can help us protect Ethiopia's unique forest system and the genetic diversity of coffee plants in the long term."

— Yigardu Mulatu Mengesha, *Ethiopian Forestry Development (EFD)*

Ethiopian coffee farmers will soon be faced with another challenge: the EU Deforestation Regulation (EUDR) will come into force for large and medium-sized enterprises at the end of December 2026, and for small enterprises at the end of June 2027. The regulation, which emerged under the European Green Deal, requires anyone who imports or sells soya, cocoa, palm oil, beef, rubber, wood and coffee in the EU to provide proof that the crops were produced on land that was not deforested after 2020. Originally planned for the end of December 2024, the application of the Deforestation Regulation has been postponed twice. Since it was announced, it has been criticised for creating additional administrative and technical burdens for small producers, for which they are poorly equipped.

Yigardu Mulatu Mengesha, head researcher at the state-run Ethiopian Forestry Development (EFD) and co-head of the Ethiopian–Swiss CARE project, has a different view of the situation. "The EUDR can help us protect Ethiopia's unique forest system and the genetic diversity of coffee plants in the long term," she says. However, coffee drinkers would have to be willing to pay a higher price for sustainability and quality. "The farmers live with the forests and take

care of them. That should be worth something to all of us."

To benefit from the change, producers would also need to be well prepared for the new regulation. "If our farmers lost their access to the EU market, it would have a very negative impact on Ethiopia," says Mulatu Mengesha. The EU is the largest single market for Ethiopian coffee, accounting for over 30 per cent of exports. Although other sales markets are becoming increasingly important, the EU will remain a key market even with the Deforestation Regulation in place. Today, around 20 million Ethiopians rely on income from the cultivation, processing and trade of coffee. However, knowledge of the EUDR is currently very limited among Ethiopian coffee farmers, says the researcher. She stresses the importance of raising awareness around the requirements of the EUDR and training farmers. "The CARE project is helping us to establish standards for forest management and traceability systems and to tighten the legal foundation so we can support coffee producers during this transformation."

Alternative to "NatureTech" companies in the Global North

Under the CARE project, researchers from the EFD, WLRC, the Ethiopian Coffee and Tea Authority (ECTA) and the University of Bern's Centre for Development and Environment (CDE) are working closely together. Elisabeth Bürgi Bonanomi, Professor of Law and Sustainable Development at the CDE and co-head of CARE, focuses on topics including international trade rules and ways of making them more sustainable. "By introducing the EUDR, the EU has chosen an approach, specifically a product differentiation, that was long considered a no-go, partly because WTO law leaves little room for manoeuvre here," she explains. "Products that are produced sustainably are consciously favoured over other products."

So the EU regulation is heading in the right direction, she says, but it also has shortcomings, and a lot will depend on how it is implemented. "The services that enable the traceability of the coffee have to be provided locally. Otherwise, there is a risk that the added value will be exploited by ‹NatureTech› companies from the Global North instead of benefiting the producing countries." Bürgi Bonanomi wants to see the increase in transparency leading to greater attention on the production conditions facing farmers, so they are reflected in pricing going forward. Consequently, the researchers are currently developing an Ethiopian system for proof of origin and a local standard for forest and agroforestry coffee. They are also examining price regulation instruments and ways of linking them with climate financing models. Finally, the team also contributes to European debates on the fair implementation of the regulation.

Localising traceability

Establishing that no forest has been felled on a particular piece of land for coffee cultivation requires precise forest maps and regular comparison using satellite images. A team of WLRC specialists led by Amare Bantider and Sandra Eckert, an expert in remote sensing at the CDE, used geodata analysis tools and satellite image time series for precision mapping of forest cover in 2020 for two districts in the coffee-growing regions of Kaffa and Gedeo in southern Ethiopia. They used the data to create a baseline map.

Elisabeth Bürgi Bonanomi visits Kebede Go'do Loli in Yirgacheffe: his award-winning coffee is licensed for export, yet still sold to local collectors. *(Photo: Desalew Getnet)*

The team also developed an algorithm that can automatically record, evaluate and display changes in forest cover compared to 2020. All this data is collected in an online platform with details of the farmers, including names, coffee cultivation area and coffee standards. The cultivation sites can be automatically compared against the forest and deforestation maps. Importers, roasters and other stakeholders along the value chain can use the platform to find EUDR-relevant information – in compliance with predefined data protection regulations. Using QR-codes and the online platform, they can check whether certain coffee producers in Ethiopia have a deforestation warning and thus prove that their coffee complies with EUDR requirements.

Recording the current stock of coffee plants is particularly time-consuming, says Sandra Eckert. "Theoretically, we have to record each tree individually." When the EU drafted the regulation, it assumed that the country had large-scale, contiguous coffee plantations which would be very easy to map. "But the reality in Ethiopia is different." Instead of individually mapping hundreds of thousands of trees scattered throughout dense forests, Eckert and her team took a 'landscape approach' – evaluating contiguous landscapes that are already sustainably managed collectively as larger units. These include the Kafa UNESCO Biosphere Reserve and a number of state-sanctioned participatory forest management groups and cooperatives. There are detailed maps for some of these areas that the researchers were able to draw on.

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> *— Elisabeth Bürgi Bonanomi, CDE, University of Bern*

The system developed under the project is now to be implemented in the two regions of Kaffa and Gedeo, in cooperation with the ECTA. Since most farmers lack smartphones

Up to fifteen days on the drying beds: the coffee is turned regularly and gone over by hand throughout. *(Photo: Desalew Getnet)*

or regular internet access, they are dependent on external support. Project staff conduct training sessions with agricultural consultants and cooperatives, which help coffee farmers in the field digitally record their coffee cultivation areas and other production data using an app. In the longer term, Eckert believes that farmers could take responsibility for mapping 'their' trees themselves via smartphone. "Our preference would be to have the ECTA or the WLRC operate the platform in Ethiopia in the future." However, this would require additional funds to create a baseline map for the entire country and record the data of all growing regions with over five million coffee farmers.

Scope for socially responsible trade

Elisabeth Bürgi Bonanomi and her team at the University of Bern are also interested in Switzerland's role in the implementation and possible adoption of the EUDR. "Switzerland plays a key role in the international coffee trade," says the researcher. "No other country generates more value from coffee." Each year Switzerland earns CHF 3.5 billion from the export of roasted coffee. Companies based in the country, including Nestlé, Volcafé, Ecom and Louis Dreyfus Company, are among the largest coffee importers and exporters in the world. "To export their products to the EU, these companies have to comply with the Deforestation Regulation." Bürgi Bonanomi believes it would be advantageous for Switzerland to implement the EUDR in its own law.

Her team has also analysed how Switzerland could use its political scope constructively to ensure socially responsible implementation of the Deforestation Regulation. Working with the Wyss Academy for Nature, they discussed the opportunities and challenges of the regulation with representatives from civil society, associations, companies, public administration and academia. The result was a hypothetical draft law that is intended to spark political and administrative debate on the successful implementation of the EU Deforestation Regulation.[1] In addition to the legal foundation, Bürgi Bonanomi is convinced that more direct value chains are also key to socially responsible implementation. "We need to establish trusting, long-term relationships between producers and buyers, with price guarantees for farmers." Switzerland could promote this kind of initiative – through a cooperative fair trade agreement with Ethiopia, for instance.

The extensive knowledge gained in the context of CARE's work flows into policy briefs, reports on the current legal situation in Ethiopia and Switzerland, and proposed standards for deforestation-free, sustainably produced coffee in Ethiopia. There are various conferences planned for the last year of the project to popularise the results, including a conference in Addis Ababa in cooperation with the African Union, and another in Switzerland which will include local coffee importers and interested parties.

Tea and wheat instead of coffee

Amare Bantider hopes that the economic situation of coffee farmers in his country will soon improve. "My biggest concern is that they will abandon coffee cultivation when prices drop and switch to other agricultural products that are more lucrative." He saw this in southern Ethiopia in the early 2000s, when some coffee farmers suddenly started growing khat, whose leaves are slightly intoxicating when chewed and are widely used as a stimulant in the region. Tea and wheat are also increasingly competing with coffee plants. Forests are being cleared for these new plantations, including forests in which Arabica grows. "This threatens not only fragile ecosystems, but also an Ethiopian cultural asset," says Bantider.

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>
> — ***Amare Bantider,*** WLRC, *Addis Ababa*

Author: Samuel Schlaefli | August 2026

Cover image: *An agroforestry coffee landscape in Yirgacheffe Woreda, southern Ethiopia, where coffee grows under shade trees alongside fruit and spices. (Photo: Desalew Getnet)*

[1] E. Bürgi Bonanomi et al., EU-Entwaldungsverordnung – Sozialverträgliche Umsetzung im Fokus. Ein konkreter Rechtsvorschlag für die Schweiz. CDE / Wyss Academy for Nature, 2025. https://doi.org/10.48620/85842 (English version available at cde.unibe.ch)

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