

This note has been developed by the [International Coffee Organization \(ICO\)](#) and is addressed to the COP30 Presidency and the United Nations Framework Convention on Climate Change (UNFCCC). The ICO welcomes the opportunity to submit inputs for the “COP 30 Presidency Roadmap for Halting and Reversing Deforestation and Forest Degradation by 2030”, based on the questions posed by the COP30 Presidency. Following the call for inputs, the ICO contributions are structured along the lines of such questions in the below sections.

The International Coffee Organization (ICO) is the global intergovernmental organization on coffee, bringing together 42 coffee producing countries and 33 importing ones, together covering 93% of coffee production and 63% of consumption in the world. Globally, over ten million tons of coffee are produced every year across 12+ million farms that operate on more than 10 million hectares. There are approximately 25 million coffee farmers in the world and around 80% of them are smallholders¹. Over three billion cups of coffee are consumed every day across the globe.

These figures illustrate not only the economic and social importance of the coffee sector, but also its significant relevance for environmental protection and sustainable land management. When produced under sustainable systems, coffee contributes directly to **forest conservation, biodiversity protection, and climate mitigation**. The global coffee sector is therefore positioned not only to **maintain deforestation-free supply chains**, but also to **actively contribute to forest restoration and climate-resilient landscapes**.

(a) What are the most critical barriers – whether physical, economic, financial, institutional, technological or social – preventing the halting and reversing of deforestation and forest degradation?

Social awareness and shared responsibility

One of the most critical barriers to halting and reversing deforestation and forest degradation in the coffee sector is the lack of social awareness and shared responsibility across the value chain.

Compared to other commodities, coffee has relatively low exposure to deforestation. While many stakeholders in the sector increasingly recognize that coffee must remain deforestation-free – and can contribute positively to climate solutions due to its environmental, economic, and social importance – this awareness is not yet universal. Several actors still lack a clear understanding of how unsustainable practices contribute to forest degradation, biodiversity loss, and climate change, and, therefore, may prioritize short-term economic gains over long-term environmental sustainability. Targeted

¹ <https://idh.org/news/blog-new-insights-into-leveraging-coffee-middlemen-for-smallholder-living-incomes>

education, stronger communication and awareness-raising efforts tailored to different stakeholders are needed.

Climate change impacts on coffee landscapes

Rising temperatures and unpredictable and extreme weather events threaten coffee productivity. Research shows that, if the trends continue, suitable land for coffee production might be halved in several producing countries by 2050². This pressure can drive expansion into new areas, including forest frontiers, unless adaptation strategies are supported.

(b) What potential levers, whether economic, financial, institutional, social or technological, exist for accelerating the implementation of the commitment to halt and reverse deforestation and forest degradation?

1. Scaling regenerative agriculture systems for coffee

Coffee grown under shade trees already demonstrates strong potential to conserve biodiversity, enhance soil health, and store carbon, while maintaining farmer income. In many regions, these systems are already practiced at varying degrees, providing a solid foundation to build upon. Strengthening and expanding these approaches represents one of the most effective nature-based solutions in coffee landscapes, while highlighting the need for more tailored farmer-level intelligence and financing mechanisms to enable broader adoption at scale.

2. Strengthening deforestation-free coffee value chains

Private sector commitments, traceability tools, and national data systems can ensure that coffee supply chains remain free from deforestation, reinforcing market incentives for sustainable production. In this regards, training, extension services, and digital technologies can further strengthen farm mapping, traceability, and monitoring systems, ensuring transparency and accountability in coffee supply chains. However, particular attention must be paid to ensuring that these initiatives and requirements do not unintentionally exclude smallholder farmers from markets. Environmental sustainability is intrinsically linked to economic and social sustainability, and lasting progress can only be achieved when all three dimensions are addressed together.

3. Access to climate and forest finance

Lately, agricultural commodities and supply chain have only been receiving 2.5% of total climate finance³. Mobilizing blended finance, climate funds, payment for ecosystem

² <https://pmc.ncbi.nlm.nih.gov/articles/PMC9824350/>

³ <https://www.climatepolicyinitiative.org/wp-content/uploads/2022/11/Landscape-of-Climate-Finance-for-Agriculture-Forestry-Other-Land-Uses-and-Fisheries.pdf>

services and carbon market mechanisms – and better coordinating these efforts – can support farmers and cooperatives to invest in tree planting, forest restoration, and farm rehabilitation. These considerations were also taken into account by the G7, which in 2024 endorsed the establishment of a public-private global funding mechanism for coffee⁴, soon to be launched.

4. Landscape and jurisdictional approaches

Multi-stakeholder collaboration among governments, producer organizations, companies, and civil society can support sustainable land-use planning across entire coffee landscapes, integrating conservation, production, and restoration. In this regard, the [Sustainable Coffee Challenge](#) has been created to advance on these issues as a joint initiative of the private sector.

5. Farmer income diversification

Promoting income diversification for coffee farmers can strengthen their resilience while reducing pressure to expand into forested areas. This can be achieved not only through diversified systems that integrate coffee with fruit trees, timber species, and other crops (such as maize, bananas, legumes, beans, and aromatic plants), but also by developing circular economy models that create value from coffee by-products. For example, coffee pulp and husk can be processed into cascara for beverages, converted into biochar or organic fertilizers to enhance soil health, or repurposed into higher-value goods such as cosmetics, biodegradable packaging, textiles, and construction materials.

(c) What country, regional or sector experiences, best practices, and lessons learned can be shared regarding forest conservation and restoration?

A growing number of initiatives worldwide promote regenerative agriculture and other sustainable agricultural practices. These approaches integrate trees within coffee farms, improve soil health, enhance biodiversity, and strengthen ecosystem services such as water regulation and carbon sequestration. By improving productivity and resilience on existing farmland, these practices not only support restoration, but also reduce pressure to expand agricultural production into forested areas, thereby supporting the objective of maintaining deforestation-free coffee supply chains.

Several coffee-producing countries (such as [Costa Rica](#), [Brazil](#), [Peru](#), [Ethiopia](#) and [Vietnam](#)) have developed **national policies**, strategies and institutional frameworks to support sustainable coffee production and landscape conservation.

⁴ <https://www.g7italy.it/wp-content/uploads/Communique.pdf>

Brazil offers an important example of integrated policy frameworks and public-private initiatives that contribute to forest protection while enabling sustainable agricultural production:

- The [Brazilian Forest Code](#) requires landowners to conserve a portion of native vegetation on their properties through legal reserves and permanent preservation areas.
- Brazil has also developed advanced monitoring systems to support enforcement and land-use planning. Satellite-based systems such as [PRODES](#) and [MapBiomas](#) allow authorities, companies and civil society to assess deforestation risks and monitor land-use change in near real time. These tools strengthen transparency and traceability across agricultural supply chains, helping ensure that coffee production remains deforestation-free.
- At the landscape level, Brazilian coffee regions such as the Cerrado Mineiro have implemented climate adaptation and sustainability strategies combining technological innovation, efficient water management⁵ and improved farm management. As research shows that irrigation systems, drainage, and shading could increase the area of optimal suitability for coffee (by up to 50% thanks to improved irrigation systems, and up to 20% with shading trees⁶) Brazilian initiatives demonstrate how productivity improvements and climate adaptation on existing farmland can maintain coffee production without the need to expand into forest areas.

Shade-grown coffee represents one of the most widely recognized nature-based solutions within agricultural landscapes. Existing research shows that, globally, up to roughly 60% of coffee is grown under some level of shade or tree cover⁷. Integrating shade trees within coffee farms improves microclimates⁸, enhances soil fertility and biodiversity, and increases carbon storage. Specific initiatives include capacity development and technical assistance projects on regenerative agriculture, such as the ones supported and implemented by UN Agencies (the [Food and Agriculture Organization](#) (FAO), the [United Nations Industrial Development Organization](#) (UNIDO) and the [United Nations Development Program](#) (UNDP), among others), the private sector (like the [Global Coffee Platform](#), [Lavazza Group](#), Nestle [Nespresso](#) and [ECOM](#)), and consultancy firms like the [Sustainable Trade Initiative](#) (IDH).

Collaborative sector initiatives such as the [Coffee & Climate](#) and the [Sustainable Coffee Challenge](#) bring together companies, civil society and development organizations

⁵ See an example here: <https://www.agtechnavigator.com/Article/2024/08/14/The-smart-ag-projects-helping-Brazil-s-coffee-farmers-save-up-to-30-of-their-water/>

⁶ <https://iopscience.iop.org/article/10.1088/1748-9326/adacfe>

⁷ <https://www.smithsonianmag.com/blogs/national-zoo-conservation-biology-institute/2025/08/19/do-shade-grown-coffee-farms-have-a-higher-value-than-carbon-markets-recognize/?utm>

⁸ <https://www.sciencedirect.com/science/article/pii/S0167880920300438?via%3Dihub#!>

to advance **climate mitigation and adaptation** across coffee landscapes. These platforms support the scaling of sustainable farming practices and facilitate knowledge sharing across producing regions.

Across the coffee value chain, companies are implementing sustainability commitments that reinforce forest conservation objectives. Work on **carbon reduction and carbon credits** is also advancing, as shown by the several net zero commitments made by the private sector (ECOM, Illy Caffè, Lavazza, Starbucks, Nestle Nespresso, JDE, among others), and the work carried forward by financial institutions such as [Rabobank Acorn](#) and the private sector with NGOs ([Conservation International and Starbucks](#) or [Solidaridad](#)). These initiatives reward farmers for maintaining tree cover and restoring degraded land. However, stronger alignment in how these systems are designed and implemented is still needed.

Further along the value chain, **circular economy** approaches are increasingly being adopted in coffee processing and marketing. The [Center for Circular Economy in Coffee](#) promotes strategies to reduce waste, reuse by-products and improve resource efficiency across the sector. These approaches create additional revenue streams and diversify farmer incomes, strengthening economic resilience and enabling continued investment in sustainable farming systems that protect forests.

Finally, **access to finance** remains critical for scaling forest-positive coffee production systems. Blended public-private financing mechanisms have been put in place. Examples include the [Coffee Farmer Resilience Initiative](#) from Root Capital, [Agri-Business Capital Fund](#) from the International Fund for Agricultural Development (IFAD), [Farmfit Fund](#) from the Sustainable Trade Initiative (IDH), the [Fairtrade Access Fund](#) by KfW Development Bank, the [African Agriculture Trade and Investment Fund](#) from the European Union and KfW Development Bank, and the Conservation International's [AROMA program](#).

(d) How can forest conservation, sustainable management, and restoration best reflect the diverse realities of countries at different stages of development, the rights and knowledge of indigenous peoples and local communities, and different degrees of forest cover?

1. Recognizing and supporting the role of smallholder farmers

In most producing countries, coffee is cultivated primarily by smallholder farmers, whose small agricultural lands often include trees, shade systems, and other biodiversity-rich features. Initiatives aimed at halting and reversing deforestation should therefore prioritize support to these farmers through improved access to finance, extension services, climate-resilient technologies, and fair market opportunities. In Colombia, for example, the National Federation of Coffee Growers and Solidaridad support

smallholder farmers through technical assistance and access to production models that integrate shade trees and soil conservation practices⁹. Strengthening the economic viability of sustainable coffee production enables farmers to maintain productivity on existing land and invest in sustainable systems, thereby helping conserve forest ecosystems and reducing pressures for land expansion.

2. Ensuring the rights, participation, and knowledge of Indigenous Peoples and local communities

Indigenous Peoples and local communities play a critical role in the stewardship of forest ecosystems and possess valuable knowledge on sustainable land management and biodiversity conservation. Forest-related initiatives should ensure the protection of traditional land rights, full and effective participation in decision-making processes, and equitable benefit-sharing mechanisms. In coffee-producing landscapes, partnerships with Indigenous Peoples and local communities can strengthen sustainable practices, landscape restoration efforts, and biodiversity conservation while supporting sustainable livelihoods. In Brazil, for instance, Indigenous communities in Rondônia have turned to high-quality, sustainable robusta coffee production as a tool for economic autonomy and land protection¹⁰.

3. Tailoring policy approaches to different forest and development contexts

Countries differ widely in terms of forest cover, development priorities, and agricultural structures. As a result, forest conservation strategies should remain flexible and context-specific. In high-forest countries, efforts may focus on maintaining intact forest landscapes while promoting sustainable agricultural intensification on existing farmland. In regions where forest degradation has already occurred, policies may prioritize restoration of degraded lands through landscape restoration initiatives. Coffee production systems – particularly shade-grown – can contribute to both objectives by integrating tree cover within productive agricultural landscapes. For example, in Ethiopia, coffee plants traditionally grow under the canopy of native trees. Farmers manage these landscapes through low-intensity practices such as shade management, allowing coffee production to coexist with forest conservation¹¹. Regulatory and market frameworks should also take these production models into account and ensure that compliance mechanisms are adapted to the characteristics of shade-grown coffee and canopy-based systems.

⁹ <https://www.weforum.org/stories/2025/06/columbias-sustainable-coffee-sector-and-its-lesson-for-climate-solutions/>; <https://www.solidaridadnetwork.org/story/asombrate-promoting-climate-smart-agriculture-harvesting-carbon-credits/>

¹⁰ <https://projetotribos.com.br/>

¹¹ <https://www.sciencedirect.com/science/article/pii/S2666154325000663>

4. Promoting inclusive, transparent and equitable value chains

Ensuring that sustainability requirements are inclusive and accessible to producers is essential for maintaining deforestation-free supply chains. Smallholder farmers (including Indigenous communities, women and youth) must have the capacity, knowledge and financial means to comply with sustainability standards and traceability requirements. The Latin American and Caribbean Network of Fair Trade Small Producers and Workers (CLAC) work with smallholder farmers to strengthen cooperative governance, improve traceability and sustainability practices. Similarly, coffee cooperatives in Brazil support their members through technical assistance, access to inputs, and sustainability programs that enhance productivity while promoting environmental stewardship. Strengthening farmer organizations and providing technical assistance for climate-resilient production systems (including improved shade and water management and soil restoration), can increase farmers' capacity to invest in sustainable land management practices that protect forests, and reduce the risk that farmers will need to shift production into forest areas.