

Toward a Sustainable Coffee Value Chain



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In the decades to come, business will play a vital role in moving the world towards more sustainable practices, while contributing to social and economic progress. However, it must also deal with the complex realities of climate change, shifting consumer demand and geopolitical uncertainty. These challenges are even more relevant for agriculture, the world's largest employer.

And coffee is no exception. Each year, the world exports more than US\$20 billion of coffee, of which the overwhelming majority (70%) is produced by smallholder farmers in remote tropical regions. Its production generates income for millions of people.

But coffee production is increasingly challenging. Some analyses predict that by 2050, climate change will reduce the global area suitable for production by as much as 50%. Warmer temperatures may also bring more pests and diseases. Consumer demand may be growing, but more and more farmers are no longer able or willing to continue production.

Driven by consumer preferences, the coffee industry once put certification schemes at the center of its sustainability approach. With time, however, and as the scale of the challenge becomes clear, LDC has started to look beyond certification. In particular, we now support producers for whom certification remains out of reach, working through local projects and initiatives with our partners. In many cases, these also aim to help farmers obtain certification. But with or without the stamp, we want our coffee to be responsibly grown and sourced. This is how we protect our long-term supply.

We have so far focused our coffee sustainability activities on top producing countries such as Vietnam, Brazil, Colombia, Indonesia and Mexico. In 2018, we extended our sustainability programs into East Africa too. Increasingly, our projects target entire families in coffee producing countries, including women who are often the most vulnerable and have the least access to training and tools.

Impact measurement is a necessary and crucial dimension of each project, ensuring that we adjust these for maximum impact. We estimate that five consecutive years of monitoring are necessary in order to properly evaluate a program.

This coffee sustainability report, LDC's first, outlines the ways in which we are making our coffee supply chains more sustainable, working with a range of partners from businesses to NGOs. For that reason, we strongly believe that collaboration is at the heart of the solution to many common challenges. In this spirit, we hope this publication will encourage dialogue and pave the way toward potential new partnerships.

The World's Coffee in Numbers

In 2018/19, coffee farmers produced a record crop of almost 172 million 60kg bags

Of this global production volume, about 60% is Arabica, 40% is Robusta

Around 75% of global coffee production is exported

Some 10.5 million hectares are currently used for coffee production

Approximately 100 million people are involved in the production and processing of coffee

World coffee prices have fallen by two thirds in real terms since the early 1980s, and the real earnings of coffee farmers have halved in that time

Source: Coffee Barometer 2018 & LDC Research

LDC Coffee Operations.

Louis Dreyfus Company merchandizes all major Arabica and Robusta qualities and serves a diversified range of customers, from specialty roasters to multinational food companies across the globe.

Espresso or macchiato, flat white or long black, latte or cappuccino. In 2016/17, the world drank its way through nearly 9.5 billion kilos of coffee¹, up 2% from the previous year. Its appetite for coffee appears to be insatiable.

As one of the world's top five green coffee merchants, LDC works hard to meet that demand. Our operations cover around 85% of the world's coffee producing areas, and we are always looking for new opportunities to source and offer our customers a complete range of coffee qualities and origins. That means expanding our geographical sourcing footprint, while investing in research, marketing and – most importantly – sustainability.

With headquarters in Geneva and representatives around the world, our coffee sustainability teams help farmers to improve both the quality and quantity of their yield in a way that is economically, socially and environmentally sustainable. To do this, we work with various stakeholders, including the Louis Dreyfus Foundation, independent certification and verification programs, non-profit organizations, and our supply chain partners.

¹ International Coffee Organization – <http://www.ico.org/prices/new-consumption-table.pdf>



Top 5

We are one of the Top Five global coffee merchants

19

We operate 19 coffee processing plants around the world



85%

LDC covers 85% of all coffee origins



5

Five marketing offices (Singapore, Geneva, Madrid, Wilton, São Paulo)



37

A Coffee Sustainability team of 37 people

12

12 origination offices



Coffee Value Chain



Origination & Research

Agronomists and purchasers visit producers, get to know the suppliers and their coffee. By nurturing relationships with producers, we originate from all around the world.



Purchasing

We buy directly from farmers or through cooperatives and local traders.



Processing & Storing

Once we have purchased the coffee, we either store it or process it depending on whether it is green bean or parchment.



Quality Control

We control the coffee quality (defects, bean size, humidity) and cup profile to offer the optimized blend to our customers. Understanding customer needs is key to our success.



Transporting & Shipping

We organize transport, delivering the coffee to destination. We collect it directly from suppliers and have warehouses around the world. This gives us the flexibility to follow strict instructions from our customers.

LDC Coffee Operations.

continued

LDC's operations cover 85% of the world's coffee producing areas.



Peru, Honduras & Mexico

- **Honduras:** Merchandizing, logistics and quality control, 1 dry mill and warehouse close to San Pedro Sula, 5 buying agents and an office in Comayagua.
- **Mexico:** Merchandizing, logistics and quality control in Mexico City, 1 dry mill and warehouse in Perote (Veracruz) at an altitude of 2,500m.
- **Peru:** Merchandizing, logistics and quality control in Lima, 1 dry mill and warehouse in Jaén (Cajamarca) and 1 dry mill in La Merced (Junín).



Colombia

- **Bogotá:** Merchandizing, logistics and quality control.
- **2 warehousing/milling plants** in Pereira and Ibagué.
- **2 high altitude warehouses** in Cundinamarca and Páramo de Letras, at 2,600m and 3,800m for optimal storage conditions.
- **3 milling plants** owned by partners.
- **Buying stations** across the main producing regions.

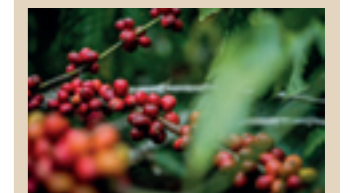
Brazil

- **Merchandizing** in São Paulo (SP) and logistics and quality control in Santos and Varginha.
- **3 warehouses/mill plants** in Varginha (MG), Matipó (MG) for Arabica, and in Nova Venécia (ES) for Conilon.
- **6 buying stations** across the main Arabica (South of Minas, Forest and Mountains region, Cerrado) and Conilon (Espírito Santo state, Bahia state and Rondonia state) producing regions.



East Africa

- **Ethiopia:** Commercial representative in Addis Ababa. Handles purchases, quality control and logistics for all grades of washed and natural coffees.
- **Kenya:** Merchandizing, logistics, quality control, milling and warehousing in Nairobi. Sourcing network covers 95% of Kenyan production.
- **Uganda:** Merchandizing, logistics and quality control. 2 warehouses and a dry mill in Kampala. Direct supply from middlemen for all grades of Arabica and Robusta.



China

- 2 warehouses located in Kunming (Yunnan), bonded and domestic, with an excellent port connection.

Indonesia & India

- **Indonesia:** Mill in Bandar Lampung, and Arabica mill and warehouse in Medan. Ability to source both Asalan raw and export-ready coffee of all grades.
- **India:** 2 warehouses/mills in Kushal Nagar and Chikmagalur. Sourcing network covers 95% of Indian coffee production.

Vietnam

- 1 warehouse and 1 milling plant in Lâm Đồng.
- 2 warehouses and 2 milling plants owned by partners.



Key

- Mill / Processing
- Storage / Warehouse
- × Tolling agreement, off-take contract, minority stake, land lease, facility lease
- ◆ Marketing Office



Contributing to the UN Sustainable Development Goals.

The UN's 17 Sustainable Development Goals (SDGs) were adopted in 2015 after a long and considered process of discussion and comment. Here is how our coffee sustainability projects contribute to those goals.



Goals 2 & 3 Zero Hunger, Good Health & Well-being

Our coffee teams work to reduce poverty among coffee farmers, proposing local initiatives to diversify their income while increasing their self-sufficiency. Training farmers to use pesticides and fertilizers appropriately, and apply safe work practices, also contributes to these goals.



Goal 1 No Poverty

Poverty is at the centre of our work toward sustainable coffee. When farmers are unable to earn enough income from coffee, they either switch to other crops or leave their farms in search of a better life elsewhere, often in cities. That is why so much of our work aims to improve the livelihoods of farmers and their families.



Goal 4 Quality Education

By training coffee farmers in sustainable agricultural practices, we help increase the number of youth and adults with relevant entrepreneurship skills. We also contribute to education on gender equality and human rights, which are key to sustainable development.



Goal 5 Gender Equality

Women play a key role in coffee farming. And in many countries and regions, women are important contributors to family income and well-being. Yet they are often denied access to tools or land ownership. We empower them by making extra efforts to include them in our trainings, many of which are now offered either to women exclusively or to entire families.



Goal 12 Responsible Consumption & Production

We need our coffee production to be sustainable in order to protect our long-term supply. For example, we help farmers to protect the health of their soil.



Goal 15 Life on Land

Sustainable coffee production requires that we protect our ecosystems, especially forests, and even plant more trees. Supporting coffee farmers prevents them from abandoning coffee farming.



Goal 8 Decent Work & Economic Growth

We sustain economic growth and productivity through diversification, technology upgrades and innovation. By training farmers in sustainable agricultural practices, we help improve resource efficiency in production, support economic growth and avoid environmental degradation. By protecting labor rights and promoting safe work, we also defend human rights across the coffee value chain.



Goal 13 Climate Action

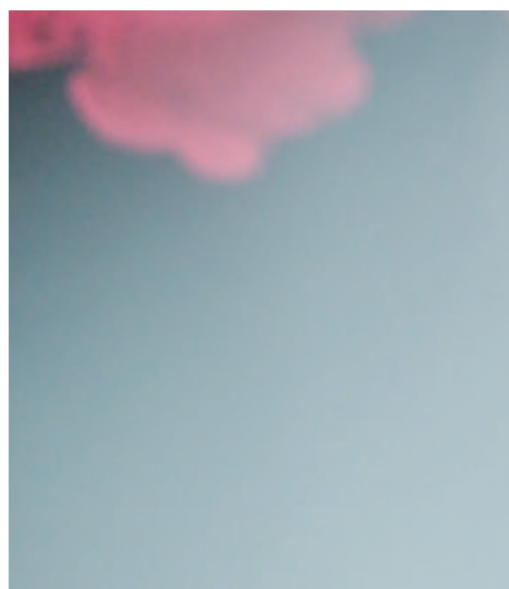
Climate change is one of coffee producers' worst enemies. Left unaddressed, it could reduce by half the land available for coffee farming. Strengthening farmers' resilience and adaptive capacity is our core challenge, and the key focus of our projects and initiatives around the world.



Goal 17 Partnerships for the Goals

We support a universal, rules-based, open, non-discriminatory, equitable and multilateral trading system. We also see collaboration as central to all our sustainability work, including multi-stakeholder and public-private partnerships.

Our Approach to Sustainable Coffee



Our Approach to Sustainable Coffee.

The continued success of LDC's coffee operations relies on a coffee supply that is economically, socially and environmentally sustainable. Although certification is the most common feature of a sustainable coffee business, we want to go beyond this.

In this sense, LDC takes a holistic approach, guided by the UN's Sustainable Development Goals (SDGs).

We choose to work directly with farmers on the ground, supporting them through initiatives that aim to increase their income or productivity through sustainable practices.

Our strategy to secure the long term future of coffee farming and supplies is therefore structured around 3 complementary streams:

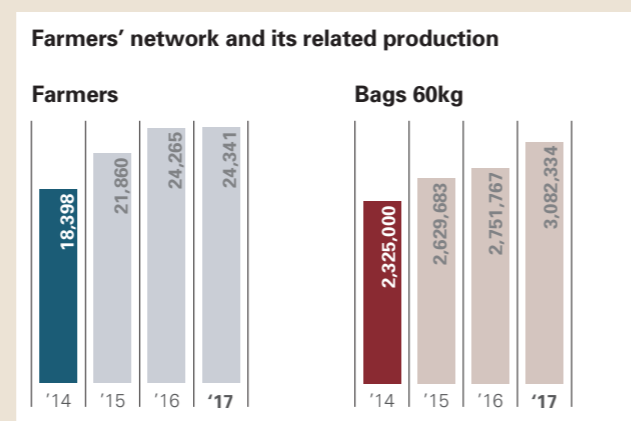
1. Boosting the production of certified and verified coffee
2. Supporting coffee farmers through projects and initiatives tackling specific local issues
3. Sourcing responsibly from farmers who adopt sustainable practices (environmentally, economically and socially), whether their coffee is certified/verified or not.



Our Work in Numbers

Some 37 people run our sustainability initiatives. This team includes project managers, certification/verification experts and agronomists.

Between 2014 and 2017, LDC conducted sustainability activities that reached more than 24,000 farmers, as shown in the table below:



Five years ago, we targeted certified/verified coffee to account for 17% of our sales by 2020.

Today we recognize that our ultimate goal is to increase the production of responsibly grown coffee. Our key challenge is to stimulate more demand at price for such coffee.

Stream 1 Boosting Production of Certified/Verified Coffee

As consumer preference and demand for sustainable coffee increases, especially among millennials in North America and Western Europe, so too has the number of certification and verification schemes. Certification reassures consumers that their coffee is responsibly produced. Based on regular audits and controls, these programs therefore remain one of the most powerful indicators of sustainability within the coffee industry itself.

The programs are voluntary, and often come with training, technical assistance, equipment such as PPE (Personal Protective Equipment), improved facilities like irrigation systems or coffee nurseries. Thousands of farmers have benefited from them over the past decades and improved their livelihood.

Certification Challenges

However, certification faces a number of challenges.

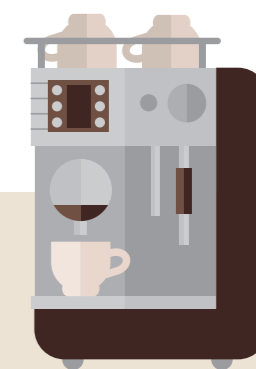
First and foremost, it is complex and expensive. It takes time, effort and money to meet the standards required by certification programs, and the cost is a hurdle that puts these out of reach for many producers.

Second, the multiplicity of schemes reduces their added-value in terms of sustainability. Producers may be unable to decide which scheme will bring them the biggest benefits and therefore get more than one certification. However, double- or triple- certification may not mean the coffee production is any more sustainable, or that the farmer produces more or better quality coffee.

Third, the benefits to farmers are becoming less and less clear. In theory, certification allows them to sell the certified coffee at a higher price to a wider range of customers, as this coffee meets specific requirements. But more and more roasters view these "sustainability parameters" as a prerequisite to do business and are therefore unwilling to pay a premium.

To a certain extent, this is a positive sign, with increasingly demanding roasters pushing for the implementation of best practices in all coffee plantations.

Finally, despite a full commitment to farming communities, certification shows its limits: certified farms race ahead, thanks to impressive advances, while the vast majority of farms are left behind. LDC aims to support certification schemes while spreading sustainability standards more widely, reaching those farmers who do not have access to certification schemes.



Main Certification & Verification Programs



4C (Common Code for the Coffee Community) is the most commonly used certification scheme in the global coffee sector. 4C coffee is produced in 28 countries by more than 500,000 farmers, many of whom are smallholders. The 4C Code of Conduct comprises 27 economic, social and environmental principles, as well as 10 unacceptable practices. It brings together representatives from producers, industry, civil society and international organizations.



Starbucks Coffee Company initiated C.A.F.E. (Coffee and Farmer Equity) Practices to evaluate, recognize, and reward producers of high-quality, sustainably grown coffee. C.A.F.E. Practices is a green coffee sourcing guideline which benefited more than 1 million workers employed by participating farms.



Merged since January 2018 with the Rainforest Alliance, UTZ aims for a world where sustainable farming is the norm. The UTZ and Rainforest Alliance programs will run in parallel until the publication of a single new program in late 2019.



Fairtrade aims to give farmers a better, more reliable deal for their produce, helping them to improve their lives and plan for their future. Fairtrade certification was introduced in 1988 following a crisis in which coffee supply was greater than demand, flooding the market and causing prices to drop. The principles of Fairtrade relate to sustainable and equitable trading relationships. They include capacity building, decent work as defined by the International Labour Organization, environmental sustainability, and monitoring and evaluation.

Stream 2 Supporting Farmers Through Projects & Initiatives

Encouraging sustainable coffee production requires reaching more farmers than we have been able to do with certification. LDC's second workstream therefore builds on – and complements – our efforts to boost the production of certified and verified coffee.

Farmers whose production is not certified remain a vast majority, often earning too little to secure a living, let alone invest in their farms or in sustainable production methods. We collaborate with these farmers to help increase their income, while protecting their community, environment and work.

The nature of our support, however, depends strongly on the local context. Farmers face a range of challenges, from climate and social change through to lack of access to finance, which require LDC to be adaptable.

Fortunately, and for more than a decade, agronomists, marketing specialists and coffee experts from LDC's Coffee team and partners in origination regions have collected data enabling us to identify the key issues faced by farmers.

In collaboration with external stakeholders, LDC agronomists visit thousands of smallholder coffee farmers each year, training them not only to improve their agricultural techniques but also to observe all applicable national and international laws and standards (usage of pesticides, minimum wages, working conditions, etc.).

See our country and projects pages for more details.



Stream 3 Sourcing Responsibly Grown Coffee

Our third workstream follows naturally from the first two. By boosting certified/verified coffee production on one side, and supporting isolated farmers through local projects and initiatives on the other, LDC contributes to increasing the production of responsibly grown coffee, whether certified or not.

Spreading sustainable practices throughout the coffee value chain, without excluding any farmer, is a key aim for LDC. To this end, we introduced a Coffee Supplier Code of Conduct in 2015.

And the notion of traceability – from suppliers to roasters – is an essential and legitimate requirement for the success of this workstream.

Traceability today extends to various levels, for example, to a mill, a specific municipality, or to a farm. In all cases, the key is to combine traceability systems with appropriate documentation. For this reason, LDC is committed to upgrading its processes through the integration of innovative technologies.



Coffee Supplier Code of Conduct

At the end of 2015, we introduced LDC's code of conduct for coffee suppliers in our five main origination countries (Indonesia, Vietnam, Brazil, Colombia and Mexico).

Our Sustainability, Compliance, Legal and Coffee Origination departments were all involved in developing the Coffee Supplier Code of Conduct. This document is based on LDC's Sustainability Policy and Group Code of Conduct, and aligned with International Labour Organization conventions, applicable local laws and regulations, as well as the various codes of conduct and sourcing policies developed by our customers.

The objective is not to exclude any farmers or suppliers, but rather that they commit to a long-term and continuous improvement process, supported on the ground by LDC.

The Coffee Supplier Code of Conduct covers four broad themes.

Human Rights: addressing issues such as forced labor, child labor, discrimination and freedom of association.

Health & Safety: requiring that employees have easy access to drinking water and adequate lighting, temperature, ventilation and sanitation. Suppliers are also expected to take the necessary steps to prevent any physical, sexual or verbal harassment and abuse.

Environmental Protection: requiring suppliers to optimize their use of natural resources, including energy and water. LDC aims to minimize pollution, deforestation, and contamination of water sources, and therefore recommends the adoption of sustainable operating and agricultural practices.

Business Integrity: prohibiting bribes and illegal or inappropriate payments, and requiring suppliers to keep their books and records transparent and up-to-date. Suppliers should be able to provide full details of all coffee and related products supplied to LDC and report any conflict of interest to LDC.

Suppliers must also report any suspected violations of local laws and regulations, or of the Coffee Supplier Code of Conduct, by email to:

codeofconductconcerns@ldc.com

In late 2018, LDC will step up the enforcement of its Coffee Supplier Code of Conduct. An independent third party will suggest amendments or additions, and monitor its implementation by LDC suppliers. Where necessary, LDC will establish a corrective action plan to help farmers adopt best practices.

Acting on a Global Scale



Acting on a Global Scale.

Asia

Country



Indonesia



Vietnam

Context

- **World's 4th largest coffee producer**
- Produced **12 million bags** of coffee in 2017
- Yields are among the **lowest in the world**
- Some coffee farmers must get by on as little as US\$1.50 per day ¹
- **Production is mainly Robusta but Arabica** is also produced in the north of Sumatra, in South Sulawesi, Bali and East Nusa Tenggara

- **World's 2nd largest producer of coffee**
- Produced **29.5 million bags** of coffee in 2017
- **97% is Robusta**, produced in the central Highland provinces of Đắk Lắk, Đắk Nông, Gia Lai and Lâm Đồng, known as the **"Kingdom of Coffee"**
- Sector directly employs 600,000 workers, rising to 800,000 during the harvest season
- **Coffee is Vietnam's second most valuable export after rice**
- Smallholder farmers account for the overwhelming majority of Vietnamese production
- **More than 85% of the country's coffee farms are smaller than 2 hectares**

Challenges

- **Coffee production challenges in Indonesia mean that many farmers leave their land** and head to the cities ²
- Others turn to rubber and cocoa production, clearing more land with knock-on impacts for the local environment and wildlife
- Including Sumatra, Indonesia has lost almost 50% of its tropical rainforest in the last 35 years
- **Deforestation makes the ground less fertile:** Indonesia produces around 800 kilos of Arabica per hectare, compared with 2,000 kilos in Brazil
- Farmers are based in remote areas and roads are in poor condition, especially during the rainy season

- **Climate change** (rising temperatures, changing rain patterns, and extreme weather) is a threat
- **Some farmers are switching to more profitable cash crops** such as black pepper, avocado and passion fruit ³
- Rapid growth of coffee production in the 1990s led to deforestation, eroding soils and reducing their quality
- **Fertilizers contaminated water resources**, and deepwater reserves have been depleted
- Agricultural demand for water is expected to increase considerably
- **The Highlands region depends heavily on coffee**, but falling global prices have hit the region hard

¹ <http://www.ldc.com/blog/in-field/indonesian-grandmother-farms-coffee-future/>
² <https://www.independent.co.uk/news/world/asia/sumatra-indonesia-coffee-harvest-climate-change-rain-gayo-highlands-fairtrade-a8133056.html>
³ https://gain.fas.usda.gov/Recent%20GAIN%20Publications/COFFEE%20ANNUAL_Hanoi_Vietnam_5-17-2017.pdf



Indonesia Project 1 Regenerating Indonesia's Coffee Ecosystem

- **Partners:** PUR Projet and Louis Dreyfus Foundation
- **Where:** Lampung, Aceh and North Sumatra
- **Project Period:** 2013-2020

Key Focus

- Self-sufficiency
- Income diversification
- Soil regeneration
- Shade for coffee trees, long-term revenue from timber
- Training for female farmers

We work with the Louis Dreyfus Foundation and PUR Projet to boost farmer incomes by planting trees and diversifying farmer revenues in Indonesia's main coffee provinces – Aceh, North Sumatra and Lampung.

So far, the program has planted more than 188,000 trees, supporting more than 7,000 farmers. The goal is to plant 310,000 additional trees and reach another 10,000 farmers (especially women) by 2020. The trees will provide shade for coffee bushes, combat soil erosion, protect water sources, and provide valuable extra income through the sale of timber and fruit.



Louis Dreyfus
Fondation d'entreprise



The program also trains farmers in a range of issues, from good agricultural practices (GAP) to safety and security, pesticide management, water treatment, coffee processing and storage, financial literacy and keeping accurate records.

Conscious of the importance of women to coffee production, and their general marginalization in society, the program includes women in the training and treats coffee production as a family business.



Indonesia Project 2 Increasing Earning Capacity

- **Partners:** Jacobs Douwe Egberts (JDE)
- **Where:** Lampung, Sumatra
- **Project Period:** 2017-2020

Key Focus

- Including women in the training while respecting local habits and cultures
- Increasing living conditions and resilience
- Erosion control, and soil preservation and enrichment
- Improving farmers' knowledge on GAPs and coffee market
- Access to agricultural equipment (pruning tools and crop protection equipment)
- Improving crop quality and/or quantity
- Improving coffee processing and harvesting methods
- Access to and improvement of storage solutions

In November 2017, LDC launched its second program in Indonesia, working with Jacobs Douwe Egberts (JDE) – a global coffee and tea company – to increase the earning capacity of Indonesian smallholder farmers. The three-year project aims to train 3,500 farmers in good agricultural practices, benefitting 14,000 people in total.



“ Testimonial Sumiran, Coffee Farmer, Sumatra

High in the rainy mountains of Indonesia's Bukit Barisan region in southern Sumatra, the climate is ideal for growing coffee, including the local Tugu Sari variety of Robusta.

When Sumiran, bought his two-hectare coffee farm here in 2003, it was run down and neglected. He was able to produce just 25 bags of coffee, equivalent to around 1.5 tonnes.

"It was a real struggle to grow enough coffee," he says. "We were hardly viable."

In 2014, he joined the LDC sustainability program, which began teaching him good agricultural practices. He learnt how to manage soil, balancing chemical fertilizers with organic material to boost the soil's fertility.

"I've participated in several sessions on safe working conditions and good agricultural practices," says Sumiran.

"But the biggest benefit is learning how to increase my crop – in 2016, I produced up to 4 tons of coffee."

In the second phase of the project, Sumiran planted around 600 seedlings, including fruit and timber trees, to give him and his family a more sustainable future.¹

"Yields have gone up," he says, "and the fruit and timber trees give us an alternative income."

¹ LDC Sustainability Report 2016 p45 and <http://www.ldc.com/blog/in-field/ldcs-sustainability-efforts-inseparable-corporate-strategy/>

Asia continued



Vietnam Project Promoting Sustainable Land Management Practices

- **Partners:** Jacobs Douwe Egberts (JDE), the Sustainable Trade Initiative (IDH) through Initiative for Sustainable Landscape Approach (ISLA), Syngenta
- **Where:** Lâm Đồng, Central Highlands, Vietnam
- **Project Period:** 2016-2018, extended to 2021

Key Focus

- Agroforestry and intercropping to increase biodiversity
- Shading and intercropping solutions
- Improving the water retention capacity of farms
- Piloting water-efficient irrigation techniques
- Optimizing use of fertilizer and crop protection products, to reduce input costs
- Reducing carbon footprint of coffee production
- Improving soil quality

LDC's first program in Vietnam is in partnership with the Sustainable Trade Initiative (IDH) through Initiative for Sustainable Landscape Approach (ISLA), as well as Jacobs Douwe Egberts (JDE) and Syngenta. The initiative trained nearly 2,500 farmers to adapt to climate change. Topics included soil regeneration, irrigation, intercropping, shade trees and pesticide control. It also established 30 demonstration plots so that farmers could see for themselves the benefits of sustainable land management.

Encouraged by this success, LDC, JDE, IDH and Syngenta are launching a new three-year program for the Highlands region. It will reach 3,000 farmers and their families, who produce around 18,000 tons of coffee each year from 4,800 hectares in Đắk Lắk, Đắk Nông and Gia Lai provinces. Demonstration plots will teach farmers new climate-appropriate agricultural techniques, how to become more resilient, and how to use agrochemicals more effectively.



Testimonial Tin Nguyen, Senior Coffee Agronomist for LDC, Vietnam

The son of coffee farmers, Tin grew up in Đắk Lắk province, known as Vietnam's coffee capital.¹ Today, he is a man on a mission.

"Life on a farm is backbreaking labor and my parents worked hard from morning to night to support the family with our harvest. Understanding first-hand their challenges made me want to spend my career helping farmers to improve their production, reduce costs, while also protecting the environment."

In September 2011, Tin joined LDC as a coffee agronomist. Today, he is back in his home province, based in Buon Ma Thuot city, where he manages coffee research and sustainability programs in Đắk Lắk.

His work differs greatly from that of his parents. He focuses his reports on the latest trends, including the exponential growth of certified/verified coffee markets and a rapidly changing climate.

On "office days", he has meetings and coffee catch-ups with colleagues, buyers, farmer group leaders, and agents. On "travel days", he visits farms for research (up to 800 on a crop tour), interviewing farmers using an in-depth questionnaire on topics such as coffee production, stock volumes, selling price and crop situation.

Training is an important part of the work. Tin conducts workshops for farmer group leaders not only on sustainable agricultural practices (crop protection products application, plantation of alternative species), but also on bookkeeping and recent market trends.

"We have seen so much improvement since the training program started," says Tin. "It amuses me how few people believe that agronomists can predict quite accurately the size of future harvests, but this is possible because of the amount of field research we conduct and the constant dialogue we are engaged in with the farmers."



Testimonial Do Ngoc Sy, Sustainability Manager, JDE, Asia Pacific

Farmers in Vietnam need urgent help. They're facing a range of complex issues from climate change and increasingly unpredictable weather patterns through to low production and sometimes unsafe work conditions too.

As a major coffee roaster operating in this country, JDE has a responsibility to help its suppliers. But we can't do it alone. We need partnerships – private and public – to address the core issues. That is why we work with LDC, one of our suppliers. LDC have the relationships and access to farmers. Their agronomists have the skills, knowledge, and tools to assist farmers on a range of appropriate techniques such as irrigation, pesticides, fertilizers, and safe working conditions.

Together with LDC, we are spreading our sustainability credentials to Indonesia, Colombia and other countries too.

We all have a common interest to support the production of sustainable coffee in Vietnam. That sustainability must go beyond certification and verification. Support for sustainability also needs to come with less administrative, financial, and organizational burden. For us and for the farmers too. Like LDC, we continue to buy certified and verified coffee, but the volumes are still small compared to our total volume. Going beyond certification and verification is in our mutual interest.



¹ <http://www.ldc.com/blog/in-field/wake-and-smell-coffee/>

Latin America

Country



Brazil

Context

- The **world's top producer** of coffee
- Producing **51 million bags of coffee** in 2017
- Accounts for nearly a **third of global coffee production** and for a higher proportion of certified coffee production than any other country
- Large farms and cooperatives were first to seize the opportunity
- **Most Brazilian production has been Arabica, but Brazil produces more and more Robusta** (Conilon) mainly to serve the domestic market
- **World's 3rd largest consumer of coffee** after the European Union and US
- **11 main coffee producing regions**, divided into Arabica and Robusta production

Challenges

- **Hard hit by climate change. Both coffee yield and quality affected.** In 2014, for example, high temperatures and drought hit yields in the largest coffee producing state, Minas Gerais, which accounts for 50% of national production.
- **Rising costs** have also been an important challenge. Compounded by a volatile currency, these have **eroded Brazil's advantage** as the world's lowest-cost Arabica producer
- Further increases to yield and certification **depend on improved performance among the smaller and less efficient farmers** with the potential to operate profitably. This requires investment and targeted extension support ⁶

LDC's Operations, Initiatives & Projects

- Some of **LDC's largest coffee investments**, looking for flexibility and efficiency. Warehouses in Varginha and Matipó in the state of Minas Gerais, and in Nova Venécia in the state of Espírito Santo
- **Operating across the supply chain**, from partnerships with rural producers through to storage, quality classification, transport, and sale of coffee on internal and external markets
- Both **Arabica and Robusta** (Conilon) coffees
- Research team (technicians and agronomists) visits farmers and monitors production
- **Employee training on responsible coffee production:** addressing responsible origination, Standard Operating Procedure (SOP), Code of Conduct, transparency, and traceability markers



Colombia

- **World's 3rd largest coffee producer**
- **2nd producer of the more expensive Arabica variety**
- High altitudes, volcanic earth and mild temperatures make **excellent growing conditions for Arabica**
- Long civil war caused **major disruption in coffee growing areas**. With the conflict now over, thousands of coffee-growing families are returning and **replanting their land** ¹
- **Aims to boost annual production in the next few years** to 18 million bags per year, up from 14 million in 2017 ²
- **500,000 Colombian families** grow coffee on small farms, almost all of them in the Coffee Triangle, the central Andean departments of **Caldas, Quindío and Risaralda** ³

- **Climate change** is the number one challenge
- Coffee plants need a **delicate mix of warmth, rainfall and dryness**
- Between 1980 and 2010, average temperatures in Colombia rose 1 degree Celsius. Between 2006 to 2010, average rainfall went up by 25% and **coffee production dropped from 12 to 9 million bags**
- Changing climate also gives rise to **pests and new diseases**. In 2008, leaf rust disease – La Roya – devastated the country's coffee, causing output to plummet in five years from nearly 8 million to just 4.5 million tons. Farmers have planted some 3.2 billion disease-resistant trees since then, and production has bounced back
- **High production costs** also prevent coffee farmers from enjoying a decent income

- First operations **established in 2007**, with buying stations throughout the country and 2 processing facilities: the San Antonio Milling Plant and the San Luis Milling Plant in Ibagué-Tolima, one of the most important coffee-producing regions ⁷
- Today's assets include: **2 owned mills, 2 third party mills, 3 buying stations, 4 warehouses**
- To support Colombia's farmers, we have partnered with **Jacobs Douwe Egberts (JDE) and the Sustainable Trade Initiative (IDH)** to boost farmer incomes



Mexico

- **Perfect conditions to grow Mild Arabica beans:** high and medium altitude forests close to the Pacific and Atlantic oceans ⁴
- **One of the world's top 10 coffee producers**
- Produced **3.5 million bags** in 2017/18 ⁵
- Very small coffee plantations, of less than 1 hectare
- Weak organizations/cooperatives facing difficulties to stabilize their operations

- **Climate change, leaf rust disease, and falling prices**
- Farmers **shifting away from coffee** (switching to corn, bean, citrus and livestock) or leaving plantations in search of a better life elsewhere in cities and abroad
- **Ageing coffee trees** that produce less coffee after 20 years, and which farmers can't afford to replace

- Buying station at Tapachula in the state of Chiapas
- Buying beans from the states of **Chiapas, Veracruz, Oaxaca and Puebla**
- Beans are processed at LDC's dry mill in Perote, Veracruz, which can handle either green or parchment coffee (dried beans with the skin still on them)
- **2 programs to support Mexican farmers:**
Project 1: "One Tree for Every Bag" with Starbucks
Project 2: Conservation International and the Starbucks Foundation train farmers on sustainable land management

1 <https://www.reuters.com/article/us-colombia-coffee-conflict/peace-gives-colombian-coffee-an-extra-shot-idUSKBN1C00FJ>
2 "Colombia reaps peace dividends with more buying by Nespresso," Bloomberg, 28 November 2017 and ICO, July 2018, <http://www.ico.org/prices/po-production.pdf>
3 <http://equalexchange.coop/history-of-coffee-in-colombia>
4 <https://drwakefield.com/news-and-views/an-overview-of-the-mexican-coffee-industry/>
5 LDC Research
6 IDH, December 2013, Brazil: A Business Case for Sustainable Coffee Production
7 <http://www.ldc.com/co/en/our-business/logistics/>

Latin America continued



Colombia Project Increasing Earning Capacity

- **Partners:** Jacobs Douwe Egberts (JDE), the Sustainable Trade Initiative (IDH)
- **Where:** Risaralda, Cauca and Tolima regions
- **Project Period :** 2016-2018

Key Focus

- Training in Good Agricultural Practices (GAP)
- Increasing income earning capacity
- Improving productivity
- Boosting self-sufficiency
- Promoting income diversification
- Helping with soil regeneration and analysis

The program aims to lower production costs while also increasing yields. It uses a participatory training approach to teach smallholder farmers about soil regeneration, income diversification and access to fertilizers.

The program has so far reached 1,000 producers in three regions of Colombia, and covered around 3,000 hectares of coffee plantations. In the program's third year, productivity increased in the 160 fertilizer demonstration plots. The program created another 160 compost pits to promote more efficient plant nutrition.

LDC has brought in four agronomists to 'train the trainers', enabling the farmers themselves to explain their new techniques to others. We've also hired specialists in farm economics and certification to run dedicated training modules on social and environmental management, sustainable cultivation, renovation, harvesting, processing, storage, and farm finance.

Respect for the rights of workers has also become a fundamental pillar of the training program. It promotes good practices in terms of hiring, fair payment and non-forced labor by coffee producers.



“ Testimonial
Daniel Martz, Head of Corporate Affairs, JDE Coffee



Sustainable coffee production is an extremely important goal that is extraordinarily hard to achieve. That's due in large part to the large number of coffee farmers (estimates vary greatly from 11 to 25 million globally) who range from large corporate farmers with high-tech tools to subsistence farmers selling a little bit of coffee for a small amount of extra cash. These farmers are also found in parts of the world where poverty is endemic and where the environment is vulnerable to short term exploitation. The coffee industry is estimated to spend more than US\$350 million per year on sustainability; however, there is little proof that this investment is spent effectively.

JDE believes that the best way to improve coffee sustainability is to create partnerships between motivated farmers, cooperatives, exporters, traders, coffee roasters, civil society, and government. These partnerships will create the right economic incentives and policies to ensure that coffee farmers make the right long term choices: choices that are good for them, good for the people who work with them to produce and harvest the coffee, good for the environment, and good for the long term sustainability of coffee.

Since 1999, JDE has invested US\$22 million and leveraged an additional US\$18 million from our partners to train more than 216,000 farmers directly, impacting more than 1.1 million individuals in coffee households.

We have established 36 projects across 12 countries to improve coffee sustainability while working with partners such as Louis Dreyfus Company.

We know that we cannot – alone – achieve sustainable coffee production everywhere but we do believe that if we do our part while working with others, we can make significant progress towards this important goal.



Mexico Project 1 100 Million Trees Program

- **Partners:** Starbucks, local communities
- **Where:** Oaxaca, Chiapas
- **Project Period:** 2016-2018

Key Focus

- Renovating the coffee area
- Boosting coffee productivity
- Improving farmers' practices

LDC has partnered with the Starbucks program "One Tree for Every Bag", to replace more than 3 million trees in the Oaxaca and Chiapas regions between 2016 and 2018. The program replaces old coffee trees with Marsellesa – a new, more productive variety that is also resistant to coffee rust fungus. Without better yields, farmers will continue to abandon the land and coffee supply chains will collapse.

To date, the program has benefitted more than 7,500 farmers, representing more than 15,400 hectares of coffee production. Besides receiving the young trees, farmers received dedicated technical assistance and training in good agricultural practices, aiming to maximize survival rates of the young trees.



Mexico Project 2 Improving Coffee Practices

- **Partners:** Conservation International, Starbucks Foundation
- **Where:** Oaxaca
- **Project Period:** 2016-2020

Key Focus

- Improving and diversifying shade systems
- Diversifying farmer incomes
- Improving food security
- Enhancing conservation
- Boosting coffee productivity
- Improving water quality & availability

LDC partners with Conservation International and the Starbucks Foundation to train farmers on water conservation, soil regeneration, shade management, fertilizer use and sustainable farm management. Farmers benefit from higher incomes and improved food security. By using shade management systems, they also help to conserve wildlife and promote greater biodiversity.¹



¹ <https://www.conservation.org/partners/Pages/starbucks.aspx>

East Africa

Countries



Ethiopia



Uganda



Kenya

Context

- Birthplace of coffee
- Still produces some of the **world's finest coffees** helped by high altitudes and fertile soils
- Ethiopia, Uganda and Kenya are **among the continent's top producers**, with a total 13.5 million 60kg bags of coffee in 2017
- **Ethiopia**: 7.6 million bags, more than 40% of Africa's overall production.¹ Coffee is the country's top agricultural export, providing invaluable income for farmers in one of the region's poorest countries
- **Uganda**: Africa's 2nd producer at 4.8 million bags of coffee in 2017,² equal to nearly 30% of the continent's total production. Coffee is the country's top-earning export crop
- **Kenya** produced nearly 0.8 million bags in 2017

Challenges

- Farmers seriously **affected by irregular rains, increasing temperatures and drought. Coffee yields, food security and livelihoods are threatened**
- Lack of **infrastructure**
- **Deforestation**
- Limited **access to finance and education**
- Limited availability of **market information**

LDC's Operations, Initiatives & Projects

- Offices in **Nairobi, Kampala and Addis Ababa**
- **Extending LDC's presence in Africa**: rapid population growth and changing consumer patterns mean food demand is growing faster than domestic production³
- **Collaboration with PUR Projet and the Louis Dreyfus Foundation** to strengthen the resilience of coffee ecosystems and protect the livelihoods of smallholder farmers

¹ International Coffee Organization, April 2018, <http://www.ico.org/prices/po-production.pdf>

² International Coffee Organization, October 2018, <http://www.ico.org/prices/po-production.pdf>

³ LDC, About Europe, Middle East & Africa, <http://www.ldc.com/global/en/our-business/regional-footprint/europe-middle-east-africa/>

East Africa Project Preserving and Regenerating the Coffee Ecosystem

- **Partners:** PUR Projet, Louis Dreyfus Foundation
- **Where:** Ethiopia, Uganda, Kenya
- **Project Period:** 2016-2019

Key Focus

- Agroforestry
- Climate change resilience
- Coffee tree rejuvenation
- Self-sufficiency
- Food security
- Empowerment
- Improved water management



The Louis Dreyfus Foundation has supported farmers in Ethiopia and Uganda since 2015, and will now extend its work to Kenya.

LDC has been helping farmers in the region, working with PUR Projet and the Louis Dreyfus Foundation on a three-year program in Ethiopia, Kenya and Uganda since January 2018. In all three countries, coffee is most often grown in full-sun conditions, a less environmentally sustainable way to farm coffee.

In Ethiopia, the program focuses on the country's SNNP (Southern Nations, Nationalities and Peoples region), one of the most deforested areas. In Uganda, it targets the Rwenzori mountains area,

a highly biodiverse region affected by severe deforestation and harmful invasive species. And in Kenya, it focuses on Central Province, a region that has seen massive destruction of natural resources.

The program aims to strengthen the resilience of coffee ecosystems and production to secure the livelihoods of smallholder farmers. LDC and PUR Projet provide technical assistance and training, involving women as much as possible. The objective is also to build cookstoves which consume less firewood and save time for the women who collect it, enabling them to attend training.

“ Testimonial Tristan Lecomte, Founder, PUR Projet

It was chance that brought Tristan Lecomte to trees. He had founded a fairtrade company and clients kept asking him about his company's impact on the climate.

“So then we began planting trees,” he says from his office in Northern Thailand. “We quickly realised they are the best investment.”

His next company, PUR Projet, now works in 40 countries to regenerate ecosystems through agroforestry, land restoration, and sustainable agricultural techniques. Healthy ecosystems are productive and resilient, enabling farmers to be more profitable, independent, and stable.

In Ethiopia and Indonesia, PUR Projet has been working with Louis Dreyfus Company (LDC), to boost the livelihoods of smallholder coffee farmers. By increasing productivity and incomes, the projects support farmers to continue farming coffee.

In Indonesia, the work began in 2013, planting trees in the coffee-growing areas of Aceh and Lampung. To date, a total 188,000 trees have been planted.

In Aceh – a mountainous area in the North of Indonesia's Sumatra island – the smallholder farmers grow Arabica beans for premium and gourmet coffee on steep hillsides in isolated areas. Roads are poor and the closest airport is 12 hours away by car. Like other regions of Indonesia, the area suffers from deforestation and environmental degradation. Productivity is low and farmers struggle to earn a living.

PUR Projet has focused here on planting trees to boost productivity and diversify sources of income. At higher elevations, coffee farmers can double their revenue within seven years by planting 10 avocado trees for every hectare of coffee. The project plants other commercial species, such as orange, durian, and clove. Or, by planting trees, whose timber can be sold many years later, the farmers are investing in the future.

More directly, trees add value by boosting productivity. Some trees fix nitrogen, help recapture water, or increase the presence of pollinators such as butterflies and bees. By protecting coffee crops from extreme weather events, trees can also help to secure coffee yields.

“It makes sense to put coffee back into its ecosystem of origin – the forest,” says Tristan. “We have listed more than 100 benefits from planting trees.”

Lampung, at the other end of Sumatra, is a different challenge, however. A coastal area, the region is lower, hotter, and therefore better suited to producing the lower-value Robusta bean. Tree planting has an even more useful role to play here in diversifying a farmer's revenues. Diversification also helps protect from the spread of pests and disease.

Storms and cyclones hit this region with increasing frequency, but trees help protect the coffee plantations from such weather events. Trees also defend against the sun. Coffee (as well as cocoa) requires very roughly 40 percent of the field to be shaded.

PUR Projet helps farmers to become self-sufficient, but the benefits go wider than that. Tree planting helps mitigate deforestation, biodiversity loss, and climate change.

The world's forests are being cut at a rate of more than 32,000 hectares each day.¹ Deforestation is high in south east Asia too.

PUR Projet also has a demonstration effect. Planting a tree costs about US\$4, but can generate up to US\$15 per year in financial and other benefits. But the largest benefit may be the trees' impact on soil fertility. If leaves are not falling onto the floor and decaying, then the soil degrades and productivity declines.

“You can put as much fertiliser as you want, but this is mineral matter and you need organic,” says Tristan. “You need to regenerate the soil and only trees can do that.”

¹ Scientific American, “Measuring the Daily Destruction of the World's Rainforests” <https://www.scientificamerican.com/article/earth-talks-daily-destruction/>

Partner Contributions



Partner Contributions

The SDGs Were a Breakthrough



We speak with Mario Cerutti, Lavazza's Chief Institutional Relations and Sustainability Officer, about why the Sustainable Development Goals (SDGs) were revolutionary for Lavazza, whether certification schemes advance sustainability, and how are they shaping their supplier relationships.

How and why did Lavazza start its sustainability efforts?

We started almost 18 years ago. And back then, it was a really simple decision. We did it because we thought it's the right thing to do. We thought that's what our values are, what we believe in, and what we want to do. Of course we knew that our business would also benefit eventually too, but – first and foremost – it was our values that drove us towards more sustainable, more socially and environmentally conscious thought and action. Today, sustainability is no longer optional, it is something we have to do.

And how do the SDGs fit in?

In our company we see the SDGs as a breakthrough. This is a transformational moment. For Lavazza, and other private sector players, it is the right framework and we embrace it with enthusiasm.

It gives us a system and a point of reference to organize ourselves. It even allows us to reclassify our activities, measuring impact and connection to the SDGs. That relates not only to our sustainability efforts but to our business as a whole – from packaging to farm-level projects.

Today, sustainability is no longer optional, it is something we have to do.

Our staff ask the questions: How do my actions contribute to these goals? Do I have a positive impact? Does this make a difference? This thinking is not always easily measurable, but over time it changes the company, adds an extra layer of operating. We celebrate that change.



What is "Goal Zero" for you?

We speak a lot about Goal Zero in the company. It's our idea of encouraging and inviting others, other companies, into embracing and helping us to embrace the SDGs even more and on a more profound level.

The idea is to involve as many of our partners, suppliers, and others.

What is your position on certification?

Certification is a good consumer-facing instrument but it has its limits. It would be safe to say that we are not overly fond of the system but we see it as a good way of establishing communications with the consumer. It involves the consumer more.

Like LDC, we have been running or getting involved with a number of sustainability projects. This is our way of contributing directly on a range of issues from gender and water through to deforestation and entrepreneurship.

Could you describe your supplier relationships?

Our idea is simple. We make it very clear what our values are and what we stand for, what aspects we feel are critical and which ones a bit less so. But we expect to work with those who share and respect these values. Full stop.

We have a supplier code of conduct. As a declaration it's extremely important. Our expectation is that we share the approach and its importance with our supplier. We want the objectives to be clear and we expect our suppliers to act accordingly. Then we need to see concrete actions. We expect a certain pro-activity.

What role do you think merchants like LDC should play in the supply chain?

In my opinion merchants could take on a much more ambitious role. We see them emerging from the background and we hope they will be more and more active in the social and environmental area now. I see a vacuum, the need for a player who is present throughout the supply chain and who would use that position to catalyse positive change. I see a space for LDC in that respect. LDC should take a leadership role.

Building Competitive and Sustainable Sourcing Models, Improving Smallholder Livelihoods



By **Joost Oorthuizen**, Executive Director IDH – the Sustainable Trade Initiative

Coffee is the birth ground of sustainable trade. Thirty years ago, the first certified bag of coffee was introduced by Prince Claus of the Netherlands and Nobel Prize winning econometrist Jan Tinbergen. A lot has changed since that October day in 1988. Certified coffee has become mainstream. Front running companies have embraced sustainability. Public-private coalitions are implementing sustainable business models at an unprecedented scale, and more farmers are reached than ever. And still, after thirty years, it seems we have only started to scratch the surface.

Poverty, deforestation, unhealthy working conditions, overuse of water and chemicals are still predominant for the 125 million people that depend on coffee for their livelihoods. Low productivity (due to non-sustainable practices), depleted soils and old, non-productive trees are some of the root causes, coupled with a low organization grade and limited access to capital.

IDH is working towards systemic change in coffee and in 16 other tropical commodities to solve these systemic issues. Starting with a clear business proposition, IDH works with companies to co-invest in new business models that deliver cost-effective impact. Our service delivery models (SDMs) are key in realizing long-lasting improvements for smallholder livelihoods. We see them as pivotal in transforming donor dependant (small) development programs to viable business models that can be scaled with commercial finance.



Why IDH works with companies, and especially traders? Traders play a crucial role in this transformation. Through their trading relations, they have developed widespread delivery networks with smallholder farmers and maintain financial relations with them. Making these networks more efficient, and adding new services, will make them more beneficial for both traders and their smallholder farmer base.

Over the last years, Louis Dreyfus Company (LDC) has been an invaluable partner for IDH. Next to its size and consequential potential for reach and scale, LDC has a front running mindset: willing to invest in their smallholder base out of an enlightened self-interest and to take risks in financing smallholder service delivery. Last but not least, working with LDC creates great insights.

For example, with LDC we are gaining insights and making a positive change in the coffee sector in Colombia and Vietnam. Through prototyping new business models with LDC, we can understand where to have the most impact on smallholder livelihoods and how to optimally reduce the environmental footprint of coffee production.

The work in Colombia is focused on coffee productivity through better soil fertility and plant nutrition management at smallholder farmer level. Increasing productivity at smallholder farmer level supports the income of the household and makes it more attractive for LDC to buy coffee directly from those smallholders, as their volumes and quality have increased. Through more efficient and targeted soil fertility and plant nutrition management, fertilizer application can be reduced, and unintended application of excess chemical fertiliser components is avoided.

In Vietnam, the focus is on climate change adaptation. Agroforestry, reducing the use of irrigation water and increasing the use of more responsible agro-inputs, contribute to long-term sustainability of the Vietnamese coffee sector (and thereby LDC's supply-chain in Vietnam).

The knowledge gained through this cooperation with LDC extends beyond the coffee sector and can be translated to other commodities and markets. IDH is very happy to see that companies such as LDC are joining in this journey towards more effective and cost-efficient smallholder inclusive business models as this bring us, and the sectors we work in, the necessary solutions to achieve the Sustainable Development Goals.

Through prototyping new business models with LDC, we can understand where to have the most impact on smallholder livelihoods.



The Enveritas Mission

Set up in 2016, Enveritas is a non-profit organisation that measures the sustainability of coffee production with a focus on smallholder farmers. This sustainability data gives roasters and their suppliers a more comprehensive understanding of the realities of production. With this understanding, the roasters and suppliers can focus their sustainability resources with more precision.

The Enveritas mission is to end poverty in the coffee sector by 2030. To date, they have completed nearly 25,000 surveys across 11 different countries. And they're on track to cover 100 percent of world production by 2020.

We spoke with **Nick Kirby**, Partnerships Manager, and **Lauren Schneider**, Head of Impact.

What value does Enveritas add to the world of sustainable coffee?

We want coffee production to be sustainable, but unorganised smallholders are being left behind. These smallholders produce most of the world's coffee, but they are beyond the reach of traditional certification schemes.

Our founders, David Browning and Carl Cervone, saw an opportunity to gain actionable insights about this largely unknown and vulnerable population by using new technologies coupled with rigorous statistical methodology.

We collect data that helps both the coffee industry and civil society to better understand the sustainability challenges and opportunities at the base of the coffee supply chain. This allows them to invest resources in the most effective and efficient way. We want to see an end to poverty in the coffee sector as a critical step on the path to sustainability.

What is different about Enveritas?

First, our work does not exclude any grower. It is not a pass or fail system. We can verify the sustainability conditions for all producer types, regardless of the level of traceability that exists for their coffee.

Second, our work is paid for by roasters. We don't add costs or work for suppliers but we seek to add value by sharing the insights that roasters want. Increasingly, we also reassure their customers about sourcing practices too.

Third, our work is designed to scale. Enveritas is leveraging technological innovation to create a robust data set that reaches every coffee producing community around the world. We work with local partners and advance real-time monitoring technologies to ensure we are talking to the right people and gathering only the highest quality data.

Can you tell us about the information you collect and how it is collected?

We gather information across the three pillars of sustainability, encompassing economic, environmental, and social concerns. We have a set of 30 standards, divided between minimum requirements and best practices, that are benchmarked against the global consensus around sustainability as defined by international agreements and existing certifications.

We partner with local organizations in the countries where we operate to conduct surveys of coffee farmers and processors. We provide extensive training and ongoing guidance to our partners, as well as real-time monitoring of verification progress that maintains a tight feedback loop on the ground.

What results have you seen so far?

We have only been operational since 2016, but already we are seeing the ways our data helps supply chain partners to collaborate, addressing the issues facing producers and providing a cost-effective, credible form of data-driven sustainability assurance.

The Enveritas mission is to end poverty in the coffee sector by 2030.

Rethinking Economic Sustainability

By **Luis F. Samper**, author of "The powerful role of intangibles in the coffee value chain" report by the World Intellectual Property Organisation (WIPO)

As mentioned all along this report, the challenges for the world agricultural sector are immense.

If the world's population reaches 9.5 billion in 2050 and the expected average food intake and bio energy requirements increase as expected, the world's average farmer will have to increase his/her average productivity substantially from current levels. If we consider that, according to FAO analysts, there are 570 million farms in the world and just 4% of them are located in high-income countries, where more educated and technology-prone farmers live, producers in less developed countries will have to confront even more acute productivity challenges. These farmers will also face economies of scale limitations: if we take into account that analysts believe that approximately 94% of the world's farms have an extension of less than 5 hectares (84% are less than 2 ha), small holders will also be facing significant barriers to achieve economic sustainability.

This test will be very complex for tropical products such as coffee. It will have to be accomplished in the midst of climate change and climate variability, new and evolving pests and diseases, soil degradation, deforestation and reduction of arable land. But it is not only climatic issues that need to be taken into account: financial restrictions, complex cultural issues, insufficient or non-existent technology transfer and advice, significant transaction costs and price volatility are additional features of very complex challenges that explain why the risks of growing coffee amply surpass the expected rewards for coffee producers. Not surprisingly, the world has seen a concentration of the global coffee supply into a handful of countries (3 countries produce over two thirds of the world's supply) and we are now questioning whether there will be a new generation of farmers willing to take those increased risks.

From the demand point of view, farmers are aware that the coffee industry continues to expand and that out-of-home consumption occasions carry significantly higher consumer price points. The imbalance of risks and rewards can also be illustrated by comparing the estimated total income of 25 million coffee farmers (approx. US\$20 Billion), with the \$28 billion of tax revenues that the coffee industry generated in the US in 2015, according to the National Coffee Association.



We suggest different avenues to create joint value and provide incentives to coffee producers

Empowered by new communication technologies, farmers, like other segments of the population are now protesting, demanding subsidies or other support mechanisms when green prices deteriorate forcing all industry members to rethink their roles and the way we do business to maintain the diversity and quality that has been behind the industry expansion over the last two decades.

In a recently published WIPO working paper, we suggest different avenues to create joint value and provide incentives to coffee producers by recognizing and paying for producer intangibles. We believe that the success of the so-called 3rd wave segment is based on the principles of transparency, high quality and knowledge, and that these value-creator features depend on better understanding and knowledge of individual farmers and origins in order to be credible and differentiating (see figure below). Thus, those brands – and importers – that are in a position to develop a successful relational value chain governance with suppliers will have the opportunity to unlock value and access better margins. Recent take-overs and brand launches have shown that traditional brands and market players are moving in this direction, cognizant of the need of their brands to be more relevant in a demanding and evolving food industry where concepts such as local and artisanal are key to capturing better margins.

If we acknowledge that relational value chains are part of the market solutions that have already surfaced as one of the key elements to consider, one must reflect on the future role of voluntary sustainability standards and traditional procurement practices in this new environment. The future supply of the differentiated coffee that is the basis of higher margins to all value chain participants will depend on some degree of mutual inter-dependence where a more comprehensive knowledge and understanding of producer and origin narratives should be combined with a sustainability support system that reflects local realities and measures local impact and is not limited to a standard checklist.

New and more sophisticated avenues for collaboration need to emerge for origins and regional coffees, producer associations, and individual farmers. Marketers that understand the complexity of origin and brand narratives can be in an ideal position to create the bridge between the local and authentic world of origin and the growing consumer desires for transparency and for knowledge. It is within this new world coffee order that importers will need to navigate, ceasing to be the one-way conveyor belts of market driven value chains that do not add significant value, and instead becoming the anchor of two-way partnerships that help create value for both extremes of the value chain. A very different world coffee order is beginning to emerge and importers must make strategic decisions if they want to participate in the growth of the more profitable segments of the industry.





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