

# Nespresso AAA Program Latin America Impact Assessment Report

## 2010–2020 Journey and Outlook

Prepared by the Rainforest Alliance

The Rainforest Alliance is an international non-profit organization working in more than 70 countries at the intersection of business, agriculture and forests. We are building an alliance to create a better future for people and nature by making responsible business the new normal.



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# Vision

The Rainforest Alliance is creating a more sustainable world by using social and market forces to protect nature and improve the lives of farmers and forest communities. To do this we bring together diverse stakeholders to address some of the most pressing social and environmental challenges of today.

Our partner, Nespresso, has placed sustainability at the heart of its consumer promise, committing to deliver an excellent

quality coffee while generating positive impacts on society, more specifically coffee communities. The Nespresso AAA Sustainable Quality™ Program exemplifies Nespresso's and the Rainforest Alliance's shared commitment to promoting the wellbeing of coffee farmers and nature conservation.

Now in its 18<sup>th</sup> year of operation, the learnings from the AAA Program offers valuable insights to the whole coffee industry.

*"For over 18 years, the Rainforest Alliance has worked with Nespresso to design, implement, and monitor the AAA program, often in tandem with Rainforest Alliance certification. We continue to see the progress it is making to help secure a stable, long-term supply of sustainably sourced high-quality coffee that creates positive environmental, social and economic impact."*

DANIEL R. KATZ, BOARD CHAIR, RAINFOREST ALLIANCE

*"Smallholder coffee farmers are exposed to unacceptable levels of uncertainty and risk to their livelihoods. We co-created the AAA Program with the aim to make coffee communities and Nature thrive together. It is primarily a farmer relationship program based on trust, collaboration and traceability to act at source for a better future."*

GUILLAUME LE CUNFF, CEO NESPRESSO



# Executive Summary

Launched in 2003, the Nespresso AAA Sustainable Quality™ Program provides guidance and support to thousands of coffee farmers throughout the world. Co-designed by the Rainforest Alliance and Nespresso, the AAA Program builds on the shared belief that equipping farmers with the necessary tools, knowledge, and resources to pursue sustainable farming generates long lasting, and meaningful change.

## SAMPLE & RESEARCH METHODS

*~800 farmers over six Latin American countries were surveyed. Survey data was then analyzed alongside compliance data from Rainforest Alliance Certification™. Rainforest Alliance staff also interviewed over 50 Nespresso AAA Program staff, trainers, farmers, and other relevant stakeholders to better understand the factors driving trends identified within the data.*

This report focuses on Latin America, where Nespresso has invested significant resources over the past years, and where about half of Nespresso coffee is Rainforest Alliance certified. Here, Nespresso and partners train farmers and invest in assets to improve coffee quality, sustainability, and productivity practices; participating farmers are then rewarded with a significant price premium. Since 2016, Nespresso and the Rainforest Alliance have collaborated on designing and implementing a monitoring and evaluation program to better manage the AAA Program and support Latin American coffee farmers. Nespresso has also partnered with key organizations such as Fairtrade, Fair Trade USA, PUR Project, and co-investors such as the World Bank, to deliver innovative solutions that address landscape and community level challenges. This report describes the results of the Rainforest Alliance's most recent monitoring and evaluations campaign to identify the progress of the AAA Program and areas for improvement.

Overall, the data shows that AAA farmers have made remarkable strides over the past years. In most countries, farmers achieve high compliance with critical social, environmental, and quality practices outlined by both the Rainforest Alliance Certification and AAA Program. Data also shows that performance has improved across key metrics, from following good recordkeeping practices that drive informed business decisions, to the increased adoption of agroforestry practices that promote farm health and productivity. Taking a closer look at the regional level, it becomes clearer exactly what these improvements look like and what they mean for farmers.

In Central America, coffee farms range in size, technique, and topography, meaning that challenges vary considerably throughout the region. On smaller farms, such as those found in Costa Rica and Guatemala, Nespresso provides training and guidance on recordkeeping, safe use of agrochemicals, and agroforestry cover. As a result of these interventions, performance against the AAA Program's requirements for wastewater treatment systems and agrochemical storage have improved by a remarkable 20% in both countries. The data also shows a 20% increase in the number of Guatemalan farmers renovating coffee trees, and Costa Rican farmers conducting soil analyses to guide their fertilizing practices. Interviews with farmers suggest that the technical expertise and guidance of Nespresso AAA trainers are driving these upward trends.

On larger farms, such as those found in Nicaragua, Nespresso has tailored their support to address proper housing and working conditions. Indeed, data shows that in Nicaragua there has been an increase in access to potable water on farms as well as improvements in the proper use of agrochemical personal protective equipment (PPE). Rainforest Alliance audit data also shows an improvement made to housing conditions and workers' showers and changing rooms.

## Key Progress in Latin America (2016 to 2019)

Monitoring and evaluations data collected between 2016 and 2019 on compliance with the AAA Program criteria shows following achievements and improvements made amongst surveyed farmers:

Guatemala	Nicaragua	Costa Rica	Central Colombia	Brazil
98% of farms have agrochemical wastewater treatment system	100% of farm workers have access to potable water	90% of farms have domestic wastewater treatment	20% increase in milling wastewater treatment	96% of farms are protecting natural forests
78% of farms are implementing proper agrochemical storage	75% of farms employ good agrochemical protective equipment	88% of farms are implementing proper agrochemical storage	10% increase in domestic and agrochemical wastewater treatment	95% of farms are protecting natural water bodies
63% of farms employed coffee renovation in the past year		76% of farms are conducting soil analyses		

In Colombia, water conservation and protection are key issues as farmers often practice wet mill processing on their farms. Here, Nespresso works to promote water treatment practices as well as watershed conservation. The data confirms that wastewater management—milling, domestic, and agrochemical—has improved in central Colombia. Colombia is also home to various innovations that Nespresso has developed with partners, including a retirement savings plan and a weather-indexed crop insurance program. Several interviewed farmers noted that these programs provide sources of relief and assurance for the future of Colombian coffee farming.

Water conservation is also a priority in Brazil. Brazilian coffee farms are often distinguished by their large size and mechanized farming practices, but their locations make them reliant on irrigation systems that are vulnerable to the impacts of climate change. To help farmers adapt and reduce the risk of water crises in local communities, Nespresso works at the regional and farm level on water conservation and management as well as land conservation. The data shows that conservation is a strongpoint for Brazilian farmers enrolled in the AAA Program, with an average of 96% and 95% of Brazilian farmers demonstrating compliance with the protection of natural forests and bodies of water respectively. Furthermore, due to their size Brazilian farms require hired labor to support their operations. These farms receive recordkeeping assistance to better understand the economics of their workforce, as well as to ensure compliance with labor regulations. Indeed, the data shows that improvements have been made across working and housing conditions.

#### COFFEE ECONOMICS AND LIVELIHOODS

*Dependency on coffee as a primary source of income is high amongst surveyed farms, with coffee constituting 50–80% of farm net income. However, most farmers only earn around \$1,000 USD net income per hectare, and often sit below the living income benchmark. Nespresso and the Rainforest Alliance are actively working to promote strategies such as targeted premiums and livelihood diversification.*

Conditions are improving throughout Latin America. Many of the interviewed farmers attributed the progress to a combination of the technical training guidance from AAA agronomists, and the financial support they receive via premiums earned at market. For example, farmers who demonstrated good recordkeeping as a result of their training also noted that their records allowed them to better identify where to invest their premiums. Several of the interviewed farmers opted to invest in improved housing conditions for workers, upgrades to wastewater treatment systems, and even in other crops to diversify their household incomes. The impact that Nespresso's interventions are having on the lives of farmers is evidenced in the farmers' testimonies included throughout this report.

Interviews also highlight the wider political and economic challenges that farmers are constrained by. In recent years, the international price of coffee has declined, dropping below \$1 per pound in 2018. The low level and volatility of the price of coffee presents real challenges at the farm level and makes it difficult for farmers to invest in sustainable inputs, let alone cover costs of production. Exacerbating this problem is the fact that, with the exception of Brazil, most coffee farms are small, and climate change is making it difficult for farmers to produce reliable yields. Identifying these external pressures helps explain why farmers are struggling to fully pursue sustainable activities and enables Nespresso and the Rainforest Alliance to continuously improve and adapt the AAA Program to best meets farmers' needs.

#### WORK AHEAD

*Critical compliance areas that need further attention include safe agrochemical use and wastewater treatment. The Rainforest Alliance and Nespresso are actively addressing these concerns through new certification requirements, targeted trainings, and on-the-ground collaborations, such as Manos al Agua in Colombia.*

Nevertheless, when asked about the future, AAA farmers are optimistic. From Costa Rica to Colombia, interviewed farmers shared their joy in knowing that thanks in part to the support they receive from the AAA Program, they will one day be able to pass down resilient farms to their children. The Rainforest Alliance and Nespresso are optimistic too and will continue to work together to develop and adapt interventions that meet the needs of coffee farmers and nature throughout the world.



*Renovating coffee farms with new varieties is resource intensive but an essential activity to ensure long term economic sustainability and climate resilience.*



# Introduction: Nespresso Latin America

Coffee provides a source of livelihood and economic opportunity for millions of people. But in recent years, climate change and economic instability have resulted in tumultuous periods for the coffee sector, with the greatest hardship falling to smallholder farmers. Droughts and diseases pose a direct challenge to coffee production, and the decline of international coffee prices has further exacerbated the situation.

Since its founding in 1986, Nespresso has recognized its responsibility to mitigate these challenges, and has continuously put sustainability at the forefront of its operations. Nespresso's Positive Cup program includes coffee production as a key pillar of sustainability, along with aluminum, climate, and sustainable consumption. For Nespresso, coffee sustainability means resilient coffee farms, communities and landscapes. To support this goal, Nespresso committed by end of 2020 to source 100% of its coffees (excluding special editions) from producers who adopt sustainable production practices. To evaluate this progress, Nespresso uses the AAA Sustainability Quality Program™, developed over the past 15 years in partnership with Rainforest Alliance. This report focuses on the sustainability pillar of coffee production, written from the perspective of the Rainforest Alliance, one of Nespresso's long-time partners in coffee sustainability.

## A Solution for Building Farm Resilience

Nespresso recognizes that when farmers make investments in quality and productivity, they are rewarded with a profitable harvest, and in turn better equipped to make long term sustainability investments. This nexus is the foundation of the Nespresso AAA Sustainable Quality Program™ ("AAA Program").

*"Rainforest Alliance and Nespresso have been partners since 2003 with the shared objective to improve the wellbeing of the farmers and their families, while producing coffee of excellent quality and conserving their environment. On that journey we've accomplished a lot, but there is still much more to do..."*

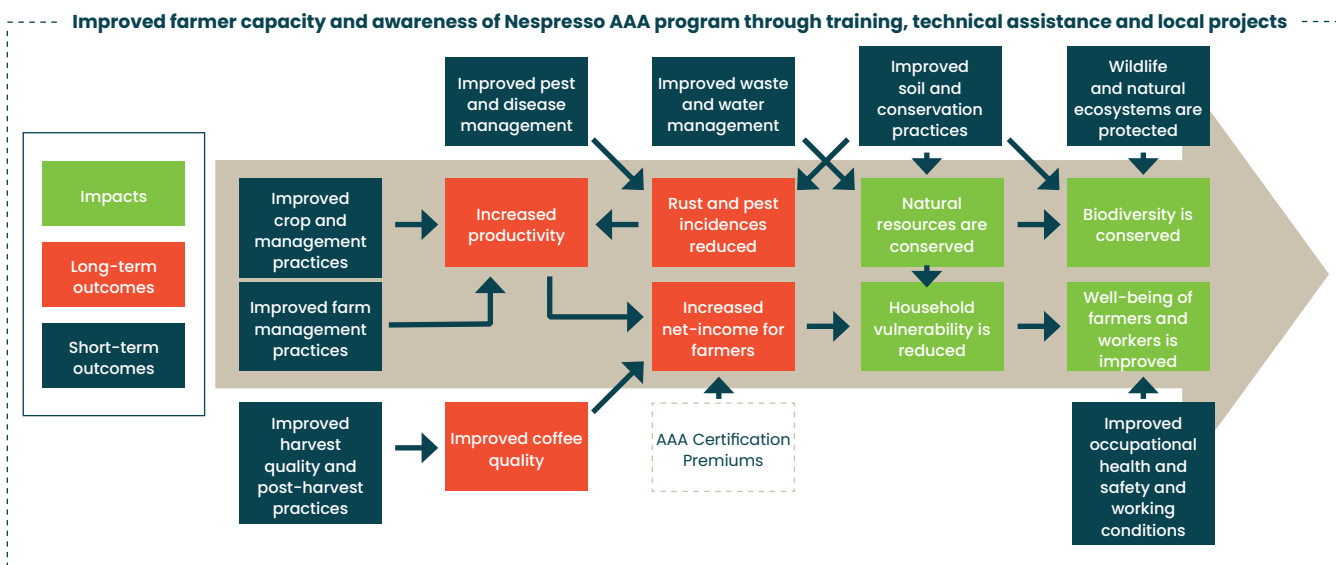
MICHELLE DEUGD, COFFEE LEAD, THE RAINFOREST ALLIANCE

The AAA program was developed with the assistance of the Rainforest Alliance, built in part upon the social and environmental norms set out by the Rainforest Alliance Sustainable Agriculture Standard. More than just a checklist, the AAA Program guides and equips farmers with the technical knowledge and financial resources necessary to pursue sustainable practices. Nespresso then rewards participating coffee farmers with a premium – often well above standard market price—for coffee that meets the AAA Program quality standards. Farmers may also obtain Rainforest Alliance Certification™, and if they do, are then eligible for additional premiums. These incentives, coupled with farmer training and technical assistance, and community-level investments, catalyze coffee farmers to improve working conditions, safeguard water resources, protect biodiversity and mitigate the effects of climate change on coffee production.

Today, the Nespresso AAA Program operates with approximately 100,000 coffee farmers in 13 countries, spanning the globe from Latin America and East Africa all the way to South and South-East Asia.



## Theory of Change



## A Solution for Strengthening Farmer Market Access

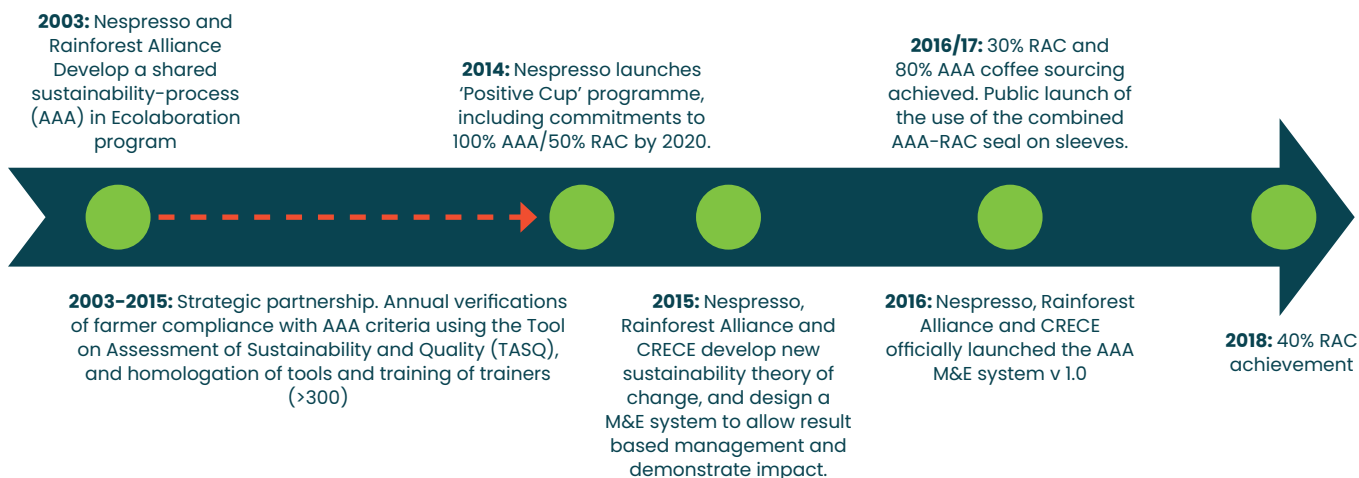
The Rainforest Alliance has played a pivotal role in guiding Nespresso along their sustainability journey. Committed to creating a world where people and nature live in harmony, the Rainforest Alliance works at the intersection of business, agriculture and forests to make responsible business the new normal. One means of doing so has been the Rainforest Alliance's sustainable agriculture certification program, which includes farmer training, a sustainability standard, an assurance processes, and a consumer-facing label. The current 2017 Rainforest Alliance standard includes numerous critical and continuous improvement criteria organized into four outcomes of farm management, biodiversity, natural resources, and livelihoods and human wellbeing.

At the close of 2019, the Rainforest Alliance certification program includes more than 190,000 coffee farmers across 25 countries, covering a total area of about 470,000 hectares. Production from Rainforest Alliance Certified farms accounted for approximately 7 percent of the world's coffee. Of this, Nespresso AAA Program includes 10,000 Rainforest Alliance Certified coffee farmers, accounting for >40% of the total coffee volume.

## A Commitment to Continuous Improvement

The AAA Program has achieved incredible reach over the past 18 years. With over 90% of its volume from AAA farms and >40% from Rainforest Alliance Certified farms, the company is close to reaching its 2020 commitment. But Nespresso does not measure success through volume alone. In 2015, Nespresso embarked on an effort to track the benefits that

## Timeline of Nespresso's collaboration with the Rainforest Alliance





result from the adoption of sustainability practices. In partnership with the Rainforest Alliance and Centro de Estudios Regionales Cafeteros y Empresariales of Colombia (CRECE), Nespresso developed the AAA theory of change, a guiding framework that depicts how technical and financial assistance can generate positive impacts. This theory of change framework then became the basis for a monitoring and evaluation (M&E) system, to better understand progress towards long-term sustainability goals.

This report uses insights gathered through the Nespresso M&E system, as well as several other sources, to describe achieve-

ments of Nespresso's AAA and Rainforest Alliance certification program investments. This first edition of the report focuses in Latin America, where Nespresso and Rainforest Alliance have the longest history. The report begins by presenting a snapshot of the characteristics of Nespresso's AAA and Rainforest Alliance Certified farms across key origins. It then takes a deep dive into Central America, Colombia, and Brazil to focus on key topics of interest in each of those origins. We conclude by summarizing key learnings on the successes and challenges of Nespresso's investments and draw conclusions to inform Nespresso's future investment priorities.



*In most origins of the world, coffee beans are carefully selected by hand.*



# Program Reach

The Nespresso AAA Program involves over 100,000 farmers that collectively manage nearly 300,000 hectares of coffee lands, and Nespresso now sources 94% of its volume from AAA farms. Through alliances with farmers, coops, traders, local governments, and civil society, Nespresso can directly support coffee farmers as well make wider regional investments that improve the livelihoods of communities and protect natural resources.

*"The strength of AAA lies in that it offers a global framework adapted to local challenges"*

PAULO BARONE, HEAD OF COFFEE SUSTAINABILITY  
AND ORIGIN DEVELOPMENT, NESPRESSO

"Through the AAA Program, our economic conditions have improved. We have more control over our expenses with records. Before we were only focusing on coffee income. Now, we can also have extra incomes from the crops intercropped with coffee."  
-CARLOS HONORIO MORA CAMPOS, CO-OWNER AND COFFEE FARMER AT RINCÓN DE MORA, COSTA RICA



"Farms often have to improve their worker housing, wastewater treatment systems, and agrochemical safety facilities in order to comply with the AAA Program. With our work, I see how we can help not just the farmers, but the development of Guatemala." - CATHERINE CABRERA, NESPRESSO-ECOM TRAINER



**Mexico**  
Since 2004  
>1,500 farms  
~3,800 ha  
>90% Rainforest Alliance certified

**Nicaragua**  
Since 2009  
>400 farms  
~4,600 ha  
>90% Rainforest Alliance certified

**Costa Rica**  
Since 2003  
>3,500 farms  
~22,400 ha  
>90% Rainforest Alliance certified

**Colombia**  
Since 2004  
>33,000 farms  
~22,400 ha  
>20% Rainforest Alliance certified  
>5% Fair Trade certified

**Peru**  
Since 2014  
>100 farms  
~1,700 ha

**Guatemala**  
Since 2005  
>1,100 farms  
~6,500 ha  
>90% Rainforest Alliance certified

**Brazil**  
Since 2005  
>1,100 farms  
~133,000ha  
>50% Rainforest Alliance certified

"Before we had issues with contaminated water and wastewater treatment, but with Nespresso's support we have increased awareness of pollution. Not just on the farm, but in the community as a whole. Workers who come to the farm are more aware of the importance of protecting water and not throwing trash around..." - EDGAR BAHOS, OWNER AND COFFEE FARMER AT EL DIVISO, COLOMBIA



*"Data as of 2019. The map displays the percentage of Rainforest Alliance and Fairtrade certification by volume"*



# Central America



*The key to a healthy, productive coffee farm is a thriving ecosystem. Both the Rainforest Alliance and Nespresso encourage coffee farmers to pursue agroforestry practices that promote soil health and the provision of ecosystem services. Photo credit: Nespresso*



## Region Profile: Central America

The seeds of sustainable coffee were first planted in Central America. In 1989, the Rainforest Alliance established operations in Costa Rica, and Nespresso launched the AAA Program™ in 2003, also in Costa Rica. Today, about 6,000 Central American coffee farmers in the Nespresso AAA program have been able to preserve their land and pass on their traditions thanks in part to the assistance they receive from the Rainforest Alliance and Nespresso.

But underlying the rolling landscapes of the region are a multitude of challenges that threaten the future of these coffee farming families. Climate change and crop diseases have contributed to declining production.<sup>1,2</sup> In 2018–2019, the global market price of coffee dropped below \$1 per pound, a price often lower than the costs of production.<sup>3, 4, 5</sup> As market prices have dropped so have incomes, forcing some farmers to abandon their communities in search of opportunity elsewhere.<sup>6,7</sup>

Nevertheless, Nespresso is committed to the coffee communities of the region for the long term. Nespresso, the Rainforest Alliance, and other partners are building farmer resilience through a variety of interventions aimed at improving farmer's financial security, cultivating healthy, productive environments, and fostering safe working conditions.



*Catherine Cabrera Nespresso-ECOM technical trainer: Working on her uncle's coffee farm gave Catherine an appreciation for coffee that led her to earning a degree in agronomy. "[Now], the farmers never saw a female agronomist before, but they respect me. The challenge is more to find the way to communicate with them. You got to use the language they understand."*



*Melissa Chacón, Nespresso-ECOM technical trainer (left) and producer Marvin Rodríguez (right). Melissa's passion for coffee started at an early age assisting her father on his coffee farm. Now, with three years of training experience, Melissa provides technical guidance to coffee farmers, throughout Costa Rica.*

### Building Trust and Financial Security

*"With improved recordkeeping assistance from Nespresso and AAA Trainers, I am able to see which of my plots and coffee varieties are the most profitable. That allows me to make better decisions and help my family's business."*

JOSE XUCTUC, COFFEE FARMER, HUEHUETENANGO, GUATEMALA

Price premiums are one mechanism that Nespresso uses to support coffee farmers. Such farmers include Jose Xuctuc, a third-generation farmer from Huehuetenango, Guatemala. According to Jose, "Nespresso helps us because they are a reliable buyer with a price premium – this gives us the opportunity to take risks and experiment with new coffee varieties and additional buyers." Jose's business decisions are informed by the detailed records he keeps, something which he has learned to maintain thanks in part to the Rainforest Alliance standard and the training provided by Nespresso and

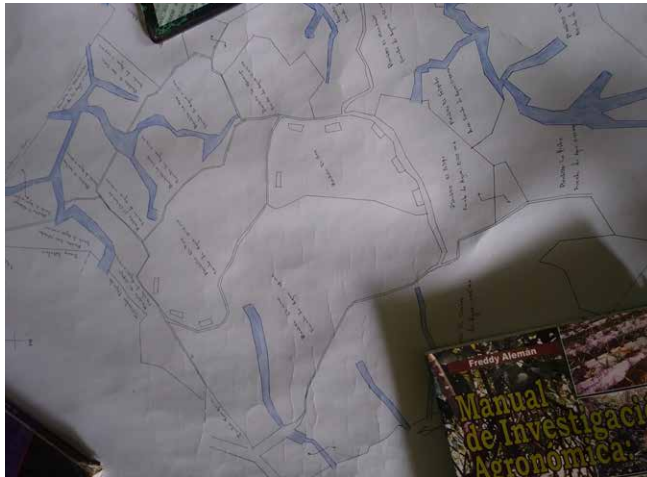
partners. Indeed, nearly all Central American farms Nespresso supports now keep records of sales and other activities on the farm (see appendix).



### 90–100%

of sampled Nespresso farmers in Central America maintain basic financial records on coffee production, supporting good farm business management.

However, these farmer records and external monitoring and evaluation data show that most of the coffee revenue earned by farmers is used to cover costs of production (see appendix). In 2018, net coffee incomes in Central America ranged from \$500–\$1500 per hectare to just \$1,000–\$3,000 per small-holder farm.<sup>1</sup> Given that coffee usually accounts for 50% to 80% of household income, these figures result in very low household income for farm families. Recordkeeping is therefore a vital means of helping farmers identify cost saving measures and opportunities to diversify incomes.



Nespresso trainers help farmers keep records. This includes working with farmers to develop maps of their farms.

*"...We are proud of our participation in Rainforest Alliance Certification and the AAA Program. It is hard work, but there are social and environmental benefits... Through our conservation efforts we've seen the return of toucans, armadillos, and Congo monkeys..."*

RODOLFO SOLIS, GENERAL MANAGER AT HACIENDA MIRAMONTE, COSTA RICA

<sup>1</sup> Does not include value of family labor



A shade tree provides protection to a coffee field in the Huehuetenango, Guatemala. In Guatemala, as well as other coffee sourcing countries, the PUR Project offers farmers an accessible and rewarding means for pursuing agroforestry.

## Resilience and Regenerative Agriculture

Coffee farmers rely on the expertise of AAA trainers, like Catherine Cabrera in northern Guatemala and Melissa Chacon in Costa Rica to help them make sustainable choices. Much of this training support focuses on agronomic practices to cultivate fertile soil, maintain shade trees and plant pest resistant crops, and protect bodies of water.

As one key issue in the mountains of Central America, shade trees provide protection for coffee trees during droughts and global carbon and biodiversity benefits. Evidence also shows that farms with moderate shade tree coverage, as encouraged by Nespresso and the Rainforest Alliance, have lower levels of water pollution than farms with less shade tree coverage.<sup>8</sup> Thanks in part to a partnership with the organization PUR Project, a growing number of farmers throughout Central America are planting shade trees to protect their local environments. Indeed, monitoring and evaluation data confirms a slight increase in shade tree diversity on coffee farms from 2016 to 2018 (see appendix). For Costa Rican coffee farmer Rodolfo Solis, agroforestry and conservation have helped revitalize the local ecosystem. "Walking through the coffee plantation today is like walking in paradise because the requirements of the [Rainforest Alliance] program guarantee the conservation of wildlife. The toucans have returned after about 10 years in which we did not see them."



### Approximately 60%

of coffee farms in Guatemala and Costa Rica now maintain high agroforestry tree diversity, up from approximately 40% in 2016.



A Shared Commitment with Workers

*“The financial and technical support we receive from Nespresso and ECOM has made it possible to pay our workers minimum wage, make improvements to living conditions, provide potable water, and install electricity in workers’ housing.”*

OSCAR GUTIERREZ MORALES, FARM MANAGER AT BUENA VISTA, NICARAGUA

While much of Central American coffee is grown by small-holders, some regions are dominated by large estates. Here, the Nespresso Program and the Rainforest Alliance standard focus on the working and living conditions for the thousands of workers who make the coffee harvest possible. Ervin Pineda and Ricardo Campo have been working at the Buena Vista farm in Jinotega, Nicaragua for the past four years. During that time the farm has invested in improving both permanent and temporary worker housing. According to Ervin, who lives on the farm, “The housing conditions here are good. We have electricity, showers, and space within the rooms. We also have access to potable water.” Ricardo does not live on the farm but has seen improvements in his working conditions. “Last year I received training on how to safely use agrochemicals. I use all the necessary protective equipment, the suit, hat, face mask, rubber boots, and goggles... When working with agrochemicals I feel safe, well covered, and not exposed to the chemical products.”

External data confirm that housing and working conditions are indeed steadily improving throughout Nespresso sponsored farms in Central America, with some of the most significant improvements in Nicaragua. Access to potable water, use of protective agrochemical equipment (PPE), and provision of safe housing are among the key issues (see appendix).



An informative mural at Buena Vista farm in Nicaragua alerts workers to their rights and environmental protections.



Agrochemical storage improved **more than 20%** in all Central America origins, and is now almost full compliance in Guatemala, Nicaragua, and Costa Rica.



The Road Ahead

*“We have seen improvements, but there are still many challenges. We’ve increased our training on recordkeeping, and [recordkeeping of] costs of production in the past two years. This way farmers can make better business decisions. But more support is needed from somewhere.”*

CATHERINE CABRERA, NESPRESSO-ECOM TRAINER  
HUEHUETENANGO, GUATEMALA

Through the Nespresso AAA Program™ and Rainforest Alliance Certification™, Central American coffee farmers have built resilience against a volatile coffee market and changing climate. As one of the earliest participants in AAA, Marvin Rodriguez in Costa Rica has witnessed the history firsthand. According to Marvin, “Thanks to the premium paid by AAA, we

have been able to sustain our activity... with the pest and disease we have to face and the high costs to produce in Costa Rica, we wouldn't have been able to survive without this differentiated price". Similarly, Michelle Deugd, coffee expert of the Rainforest Alliance in Costa Rica, notes "In my 12 years of working with the Rainforest Alliance and Nespresso, I have seen these farms flourishing on the synergies between improved farm management and business practices, increased ground and tree cover and good social conditions for workers."

But despite these accomplishments, many farmers in 2020

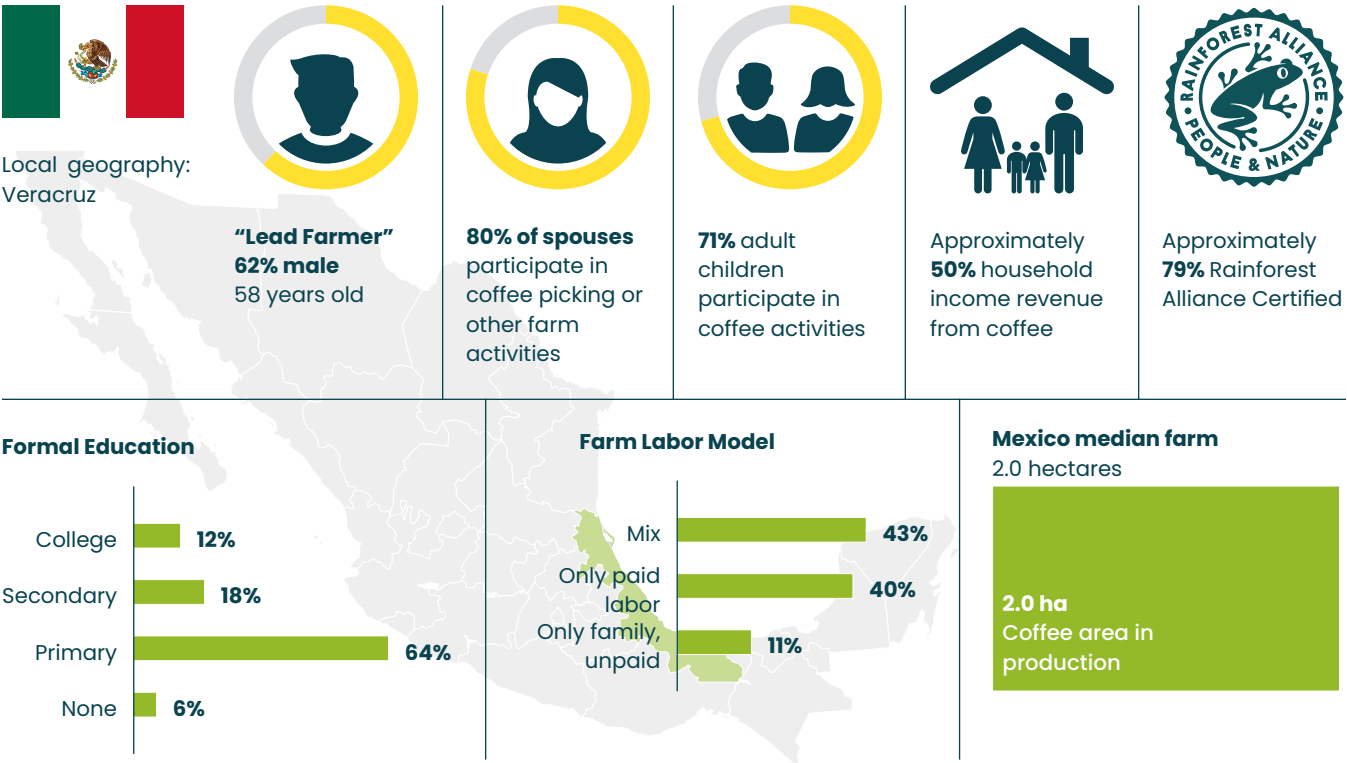
still have doubts about the future. In Nicaragua, coffee farmers still suffer from prices lower than the regional average, due in part to the ongoing political instability.<sup>9</sup> In Costa Rica, farmers are still recovering from the price decline of 2016–2019.<sup>10</sup> In Guatemala, farmers are finding it increasingly difficult to find labor as greater numbers of workers are leaving the country in search of opportunity elsewhere. In the face of these challenges, the Rainforest Alliance and Nespresso will continue to collaborate to provide necessary interventions and preserve the future of coffee farming throughout Central America.



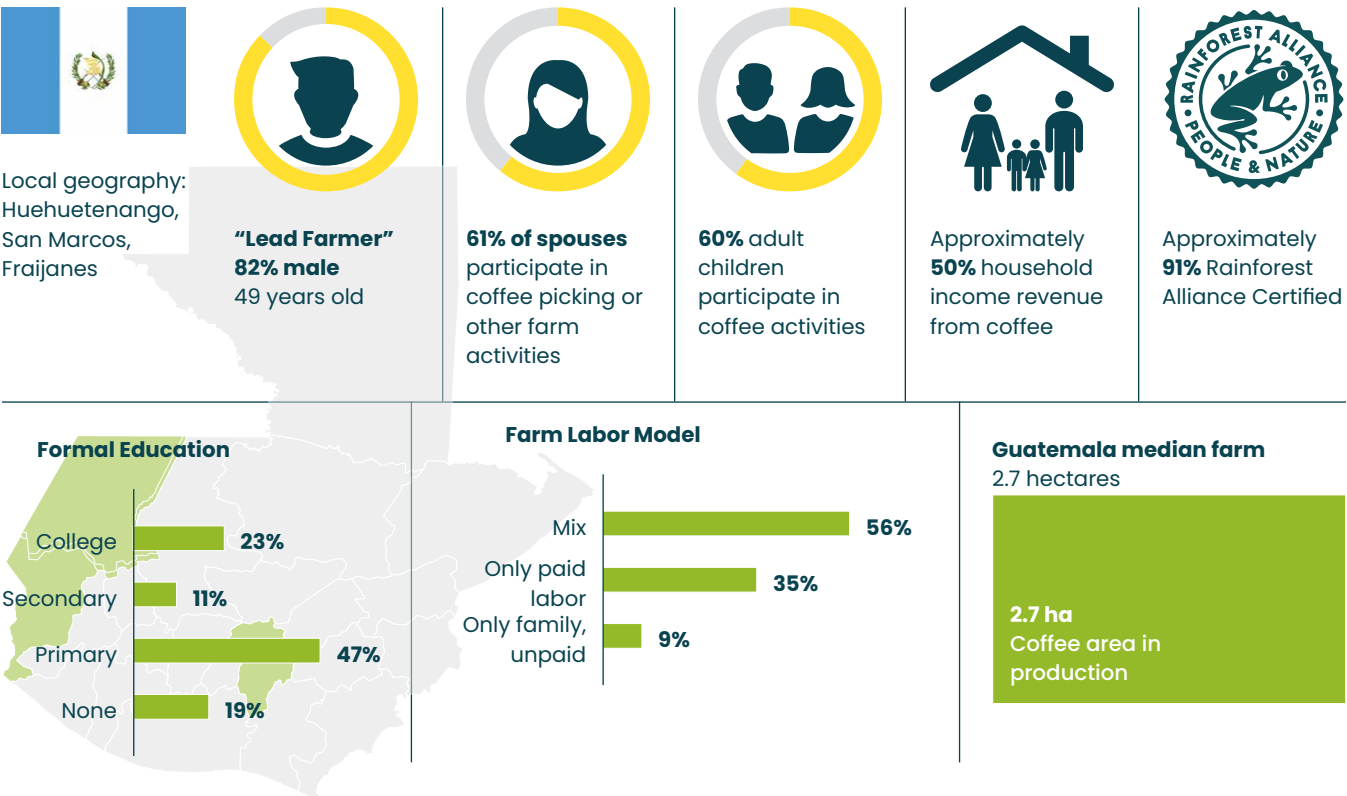
*Coffee farms like this one in Jinotega, Nicaragua rely on ecosystem services of water provision, pollinators, and soil maintenance, all provided by natural vegetation and forests.*



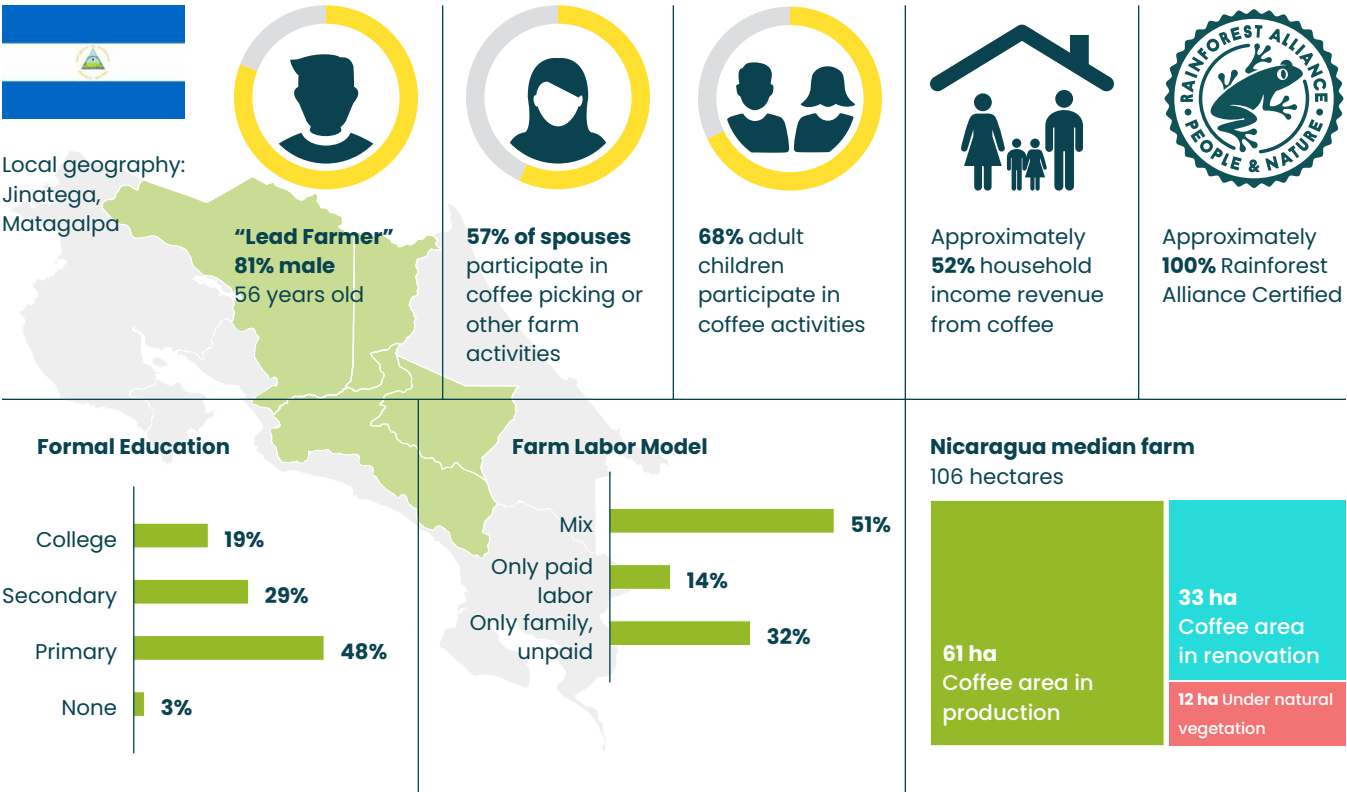
Mexico



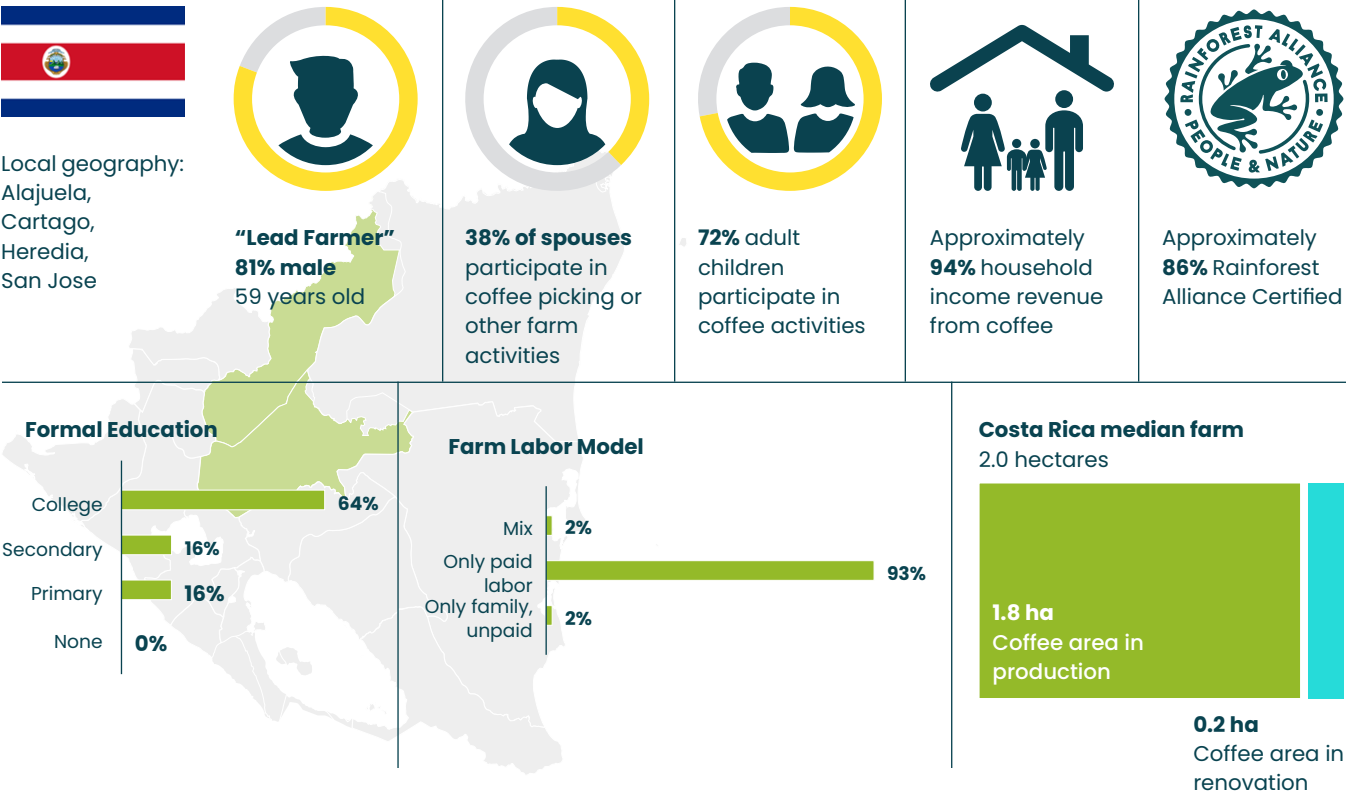
Guatemala



Nicaragua



Costa Rica







**Colombia**

*Together, Nespresso and its partners are tackling water-stewardship in Colombia through interventions that promote both access to clean drinking water as well as protection to local bodies of water.*



## Region Profile: Colombia

From small farms high up in the misty mountains of Cauca, to bustling cafés in Bogotá, coffee flows throughout Colombia. Colombia is a key origin for Nespresso, where almost half of the global Nespresso partner farmers are based. A growing body of research shows the importance that technical assistance and certification have for many of these families.<sup>11, 12, 13</sup> One recent study found that Colombian farms with Rainforest Alliance Certification™ and enrolled in the Nespresso AAA Program™ demonstrated the highest level of incomes and lowest costs of production amongst 600 farms with various forms of certification.<sup>14</sup> Throughout Colombia, Nespresso and local partners such as the Rainforest Alliance, Fairtrade, and PUR Project, as well as the farmers from Caldas to Cauca to Caquetá are working to produce quality coffee and improve farmer livelihoods.



Dario Manzano showing Nespresso manager John Edwin Rivera Buritica one of his many beehives. Being a member of the AAA Program and Rainforest Alliance has encouraged Dario to pursue apiary to help his crops and local ecosystem.

### Clean Water for People and Nature

*"Following the success of our aqueduct project we have seen other municipalities and organizations begin to invest in aqueducts. But what makes this project unique is the organization; it's not just about installing aqueducts, but training the community to manage it and raising environmental awareness amongst farmers."*

JOHN EDWIN RIVERA BURITICA, NESPRESSO MANAGER, COLOMBIA

In Colombia, coffee is typically processed on individual farms using a wet mill process. However, many farmers struggle with limited resources, making their ability to access clean water for drinking and for coffee production a key concern (see appendix). Nespresso and Colombian coffee farmers are building water security through a variety of means, including the improvement of aqueducts to enable drinking water. Utilizing proceeds from Fairtrade USA premiums and

Nespresso's financial support and expertise, the community in Sotará, Cauca was able to install an aqueduct with a capacity of 2,000 Liters a day. The aqueduct in Sotará is just one of 30 Nespresso supported aqueducts in Cauca and provides more than 100 local families with clean water. One recipient of the aqueduct's water is Nespresso partner farmer Dario Manzano. For Dario, "This project and Nespresso have helped increase farmer awareness about the importance of water. Before the aqueduct, our water quality was poor and there were higher rates of illnesses. At first, farmers were hesitant to participate, they said 'well, why would I pay for the aqueduct's water if the water on my farm is free, or I can purchase water in the city?' But after seeing the benefits and realizing how low the costs were, more families started to participate, and now people are healthier..." By the end of 2020, more than 3,600 families throughout Cauca and Nariño had access to potable water thanks to Nespresso's support. Now "...organizations like the National Federation of Coffee growers (FNC) are implementing similar projects because they are witnessing the success of this one," adds Nespresso field manager John Edwin Buritica.

Nespresso recognizes that access to clean water for drinking is just one part of the equation. Farmers like Alba Maria Osorio, in Caldas, are working with Nespresso to tackle the other part: wastewater. Wastewater from coffee production threatens environmental and human health and monitoring and evaluation shows that improving wastewater treatment systems and protecting natural bodies of water are critical concerns on Colombian coffee farms (see appendix). Committed to building a farm that generates quality coffee and positive environmental impacts, Alba represents the Colombian *caficultora*, or female coffee farmer. Through Manos al Agua- Gestion Inteligente Agua (GIA), a Nespresso sponsored initiative aimed at promoting water protection, Alba was able to install a filtration



Photo credit: Nespresso



**49%** of farmers in northern Colombia implement milling wastewater treatment—still room for improvement but up >20% from baseline



system that protects her farm and nearby bodies of water.<sup>15</sup> “Before we only had one tank, one filtration system and it wasn’t ideal...” Alba explains. She is working towards a greener future for coffee farming, one that she hopes the next generation will want to be part of. “We believe that our children will take over the farm, but it’s difficult.” Alba explains, “We need to ask ourselves ‘what are we missing that will make the youth say, ‘I want to stay and do this.’” For many of Colombia’s farmers, the answer to this question is social security.

## Securing Farmers’ Futures

*“We participate in the pension program, as well as Nespresso’s crop insurance program. Both provide us security. Last year, crop insurance helped us recover from the damage caused by intense rain.”*

LEONEL QUINTERO, COFFEE FARMER, COLOMBIA

The average Colombian coffee farmer is 54 years old, but many are unable to participate in Colombia’s national social security program and enjoy the fruits of their labor in retirement. The lack of financial security not only hurts aging farmers, but also deters younger generations from pursuing coffee. To address this challenge, Nespresso and the Colombian Ministry of Labor developed a pension savings fund for farmers in the Aguadas cooperative, linked with the premiums from Fairtrade International coffee sales. Using Colombia’s Beneficios Económicos Periódicos (BEPS) system as a foundation, the pension program allows farmers to see their savings grow alongside contributions made by Nespresso and the Colombian government.

As of 2019, 1,600 farmers are enrolled in the pension program, and Nespresso is working to reach more than 6,000 AAA farmers in Caldas and Antioquia.<sup>16, 17</sup> Leonel Quintero is a participant in the pension plan. While Leonel does not have children, “I have friends with children, and BEPS provides security for their future; teens see that there is an option to stay in coffee. BEPS helps because we know our future is safe, it makes us ‘tranquilo.’”



*Beneficios Económicos Periódicos (BEPS) and weather-indexed crop insurance are two parts of Nespresso’s Farmer Future Program (FFP). The FFP supports both young and aging coffee farmers. Photo credit: Nespresso*

## Premium Prices for Premium Coffee

*“Since joining the AAA Program I have received additional trainings and more help with the infrastructure on the farm. The premium has been really important because it has helped me experiment with different types of coffee and invest in machinery. I hope to produce the best quality coffee in the region.”*

EDGAR BAHOS, COFFEE FARMERS AND OWNER OF EL DIVISO, COLOMBIA

	\$ CARGA	\$ KILO
NESPRESSO AAA-RA	930.000	7400
NESPRESSO AAA	910.000	7250
RAINFORREST ALLIANCE	875.000	7000
CAFÉ PRACTICES	865.000	6900
BASE COOP. ESTANDAR	845.000	6800

ID FAIRTRADE: 831

*A sign hanging in a local cooperative in Aguadas, Caldas shows that a combination of Nespresso AAA and Rainforest Alliance premiums are the highest that local farmers can earn.*

In Colombia, about 80% of household revenue amongst AAA farmers is dependent on coffee.<sup>18</sup> However, about half of the revenue earned goes directly into paying for costs of production, leaving many with net incomes of only around \$2,000–\$3,000 USD per farm.<sup>19</sup> For many Colombian farmers the combination of Rainforest Alliance and Nespresso AAA premiums provide financial stability and opportunity.

Farmers enrolled in the AAA Program are eligible to receive premiums above market prices. When combined, Nespresso and other sustainability premiums offer farmers higher prices for the best quality coffee (see photo). In Caldas—as in other regions where AAA is combined with Fair Trade certification—part of the premium goes direct in cash to the farmer, and part stays with the cooperative to support projects such as equipment to investment in farmers’ pensions. As Leonel explains, “Every month there is a meeting where we [the cooperative] discuss what to invest the premiums in... projects include credit for fertilization, potable water, and renovations.”



In the high mountains of Colombia, coffee farmers are vulnerable to the effects of climate change, but are adapting with new varieties and agroforestry planning.

## Building a Future with Caficultores & Caficultoras

*"The producers are very proud of their work. During interviews they show me with excitement their work and the progress they have achieved since previous Rainforest Alliance field visits... Today I can say that coffee growers have become entrepreneurs who have a broad and complete vision of their business as coffee growers"*

FELIPE EDUARDO MORA, RAINFOREST ALLIANCE STAFF AND FORMER AUDITOR

While premiums, technical advice, and social safety net programs offer support, growing coffee on small, climatically

vulnerable farms in the mountains of Colombia is still a precarious life. Conditions are changing. As traditional coffee growers age and youth move to cities, female coffee growers play an increasing role. When asked what additional support she would like to see, Alba responds "I want to see a platform for women coffee growers to share their knowledge and voice their concerns. It is hard being a woman coffee grower, and we need more support."

Driving through the nation's rugged landscape, it is difficult to discern what is more awe inspiring, the nation's piercing mountains, or the coffee communities that inhabit them. These communities combat unstable weather conditions, limited resources, and economic uncertainty. Despite these challenges, farmers persist. By fostering sustainability beyond the level of individual farms, Nespresso and partners are building a future that benefits all Colombian coffee farmers.



Colombia Central



Local geography:  
Caldas, Antioquia,  
Cudinarmarca,  
Huila, Santander



**"Lead Farmer"**  
**71% male**  
54 years old



**94% spouse**  
participates in  
coffee picking or  
other farm  
activities



**50% adult**  
children  
participate in  
coffee activities

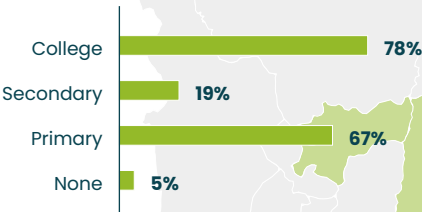


Approximately  
**94%** household  
income revenue  
from coffee

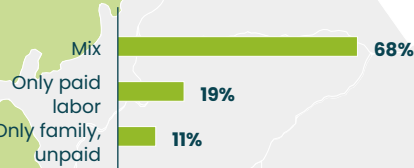


Approximately  
**40%** Rainforest  
Alliance Certified

Formal Education



Farm Labor Model



Colombia Central median farm  
2.6 hectares



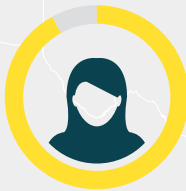
Colombia South



Local geography:  
Cauca & Nariño



**"Lead Farmer"**  
**72% male**  
53 years old



**92% of spouses**  
participate in  
coffee picking or  
other farm  
activities



**65%** adult  
children  
participate in  
coffee activities

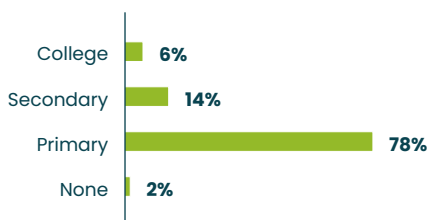


Approximately  
**80%** household  
income revenue  
from coffee

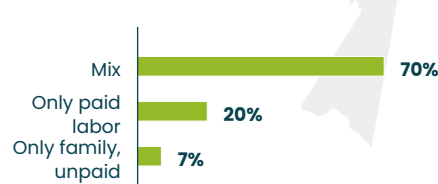


Approximately  
**15%** Rainforest  
Alliance Certified

Formal Education



Farm Labor Model



Colombia South median farm  
1.1 hectares



## Brazil



*The scale and industrial character of coffee farming in Brazil has taken its toll on the country's land and forests. However, Brazilian farmers, with support from Nespresso, are working to rejuvenate land through restorative conservation practices and sustainable cultivation practices.*



# Region Profile: Brazil



Photo credit: Nespresso

Several thousand kilometers from the Amazon, southeastern Brazil is a land of coffee. The contrast between the highly mechanized farms of the interior Cerrado and the more traditional farms closer to Rio de Janeiro and São Paulo highlights the fact that no two Brazilian coffee communities are alike. Despite their diversity in size, topography, and technique, these communities all have one thing in common: a shared vulnerability to climate change.

Many of Brazil's farmers are still recovering from the record droughts of 2014 during which coffee farmers in São Paulo lost approximately a third of their crops.<sup>20, 21</sup> Even though Brazilian coffee farms enjoy some of the highest yields in the world, the International Panel on Climate Change warns that conditions for Brazilian coffee farmers will only worsen if temperatures continue to rise.<sup>22</sup> Brazilian farmers must adapt, but transition costs make adaptation difficult, and these challenges also contribute to low wages and exploitative conditions for workers.<sup>23</sup> However, Nespresso and partners believe that regenerating coffee landscapes will create shared value for the farmers and workers that depend on them, and are working hard to achieve this vision.



Maria Selma Magalhães and her husband Afranio. Selma is happy that the farm will one day be in the hands of her children, Paula and Gustavo.

## Revitalizing Farms and Protecting Nature

*"We followed good environmental practices prior to joining the AAA Program but joining has only strengthened our practices. We regenerate more native vegetation throughout the farm, put an end to the practice to cut fuelwood, and started to dispose and recycle waste... We feel less affected by climate change than our neighbors."*

MARIA SELMA MAGALHÃES, COFFEE FARMER AND OWNER  
OF FAZENDA RECANTO, BRAZIL

Maria Selma Magalhães is a fourth-generation coffee farmer at Fazenda Recanto. When Selma inherited the 439-hectare farm her first task was to revitalize it after years of intense dairy farming. After successfully converting part of the farm to coffee production, Selma earned Rainforest Alliance Certification™ in 2006, and joined the Nespresso AAA Program™ the following year. Selma admits that gaining certification was not easy: "Among the difficulties to comply with the [Rainforest Alliance] standard, it meant some physical adjustments, for example making a septic greywater treatment system." Training for climate change adaptation is also part of this process. "With simple measures like using vegetative cover between coffee rows, using less herbicides and more mechanical weeding, you can have a positive effect on plant and soil health," explains Selma.



65% of Brazilian farms implement domestic wastewater treatment, more than a 20% increase since baseline

The Magalhães family is not the only one to witness their farm improve with Nespresso's guidance. Upon entering the Nespresso Program in 2009, Diogo Dias Teixeira de Macedo began collaborating with Nespresso to improve his farm, Fazenda Recreio. "Several springs run throughout farm, but they were often blocked due to the discharge of residual water in the tributaries," Diogo explains, "Together with Nespresso, we managed to develop a wastewater treatment project and implement it, resulting in great environmental gains." Both Selma's and Diogo's experiences reflect the gradual improvement of wastewater treatment that has occurred on Brazilian AAA farms (see appendix).

Diogo is also one of twenty producers and one of five coffee growers participating in a landscape reforestation project. Launched in 2019 by Nespresso and SOS Mata Atlântica, the project promotes agroforestry as a means of protecting biodiversity and vulnerable bodies of water located in the re-

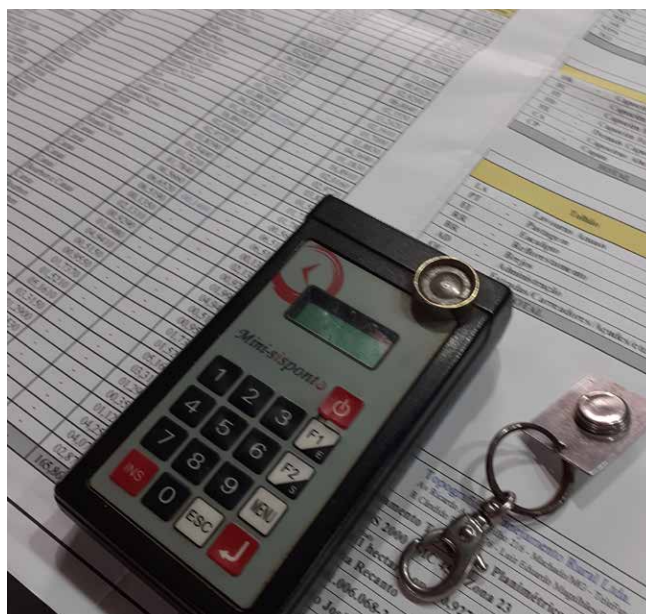
gion.<sup>24</sup> The Brazilian Forest Code requires farms to "set-aside" a certain amount of land area outside of cultivation, especially land around waterways. However, this project helps farmers like Diogo go one step further and restore and enrich this set-aside land with native forest trees. To date, Nespresso has invested \$100,000 USD into the project with the goal to plant 50,000 trees. Planting has already started at Fazenda Recreio, with 21,250 seedlings set to cover 8.5 hectares. Diogo's farm is just a start, the project aims to reach 500 producers. Monitoring and evaluation data confirm that protection of natural forests and natural bodies of water is a strength of Brazilian coffee farms (see appendix).

## Empowering Farmers Through Recordkeeping

*"It helps us a lot to know expenses and costs, as with the financial information and the data on every activity of the farm, we can calculate the costs by bag, by hectare, by year, the effective and total operational costs."*

PAULO MARIOTTI FLORA, COFFEE FARMER AND CO-OWNER OF FAZENDA  
CACHOEIRINHA, BRAZIL

Many Brazilian farms are large commercial enterprises, but some still struggle with basic business practices of recordkeeping about production practices, wages, and other tasks (see appendix). Farmers like Diogo and Selma can attest to the value of good recordkeeping. Diogo's family has been keeping records since 1958, but Nespresso trainers have helped Diogo improve this practice. With better records, Diogo has improved coffee traceability at his farm, develops



Recordkeeping equipment in Brazil used to monitor production costs and input usage.



well informed yearly farm management plans, and communicates more clearly with his staff. By helping Diogo track profits and expenses, his records have also made it easier to invest in much needed renovations. At Fazenda Recanto, the Magalhães family believes that recordkeeping, as promoted by Nespresso and partners, has been a large factor in the farm's success. According to Selma, "What helped the most was to keep records. We have records on daily, weekly and monthly activities on the farm, and now we use a mobile data collector (Sispoint app) that assigns daily tasks to each worker. The app also collects data on the work done and facilitates the counting of hours worked and to be paid." Ensuring accurate payment through recordkeeping is a key step, but not the only step for Nespresso and participating farmers to protect workers' rights.

## Workers' Rights and Human Rights

*"We cannot tackle labor related issues with certification alone. We need support from government organizations and other partners. This is a complex problem that does not have one easy solution"*

MARIANA BARBOSA, COUNTRY REPRESENTATIVE,  
RAINFOREST ALLIANCE, BRAZIL

Most Nespresso partner coffee farms in Brazil are about 50 hectares, and some farms even extend several hundred hectares.<sup>25</sup> These larger farms, like Fazenda Recanto, are dependent on a large workforce. The Magalhães family employs 30 permanent workers and 60 temporary workers during the harvest. One employee, Gabriel, is in his fifties and has been working on the farm for twenty-one years. Gabriel claims that "I would recommend anyone to come and work on the farm. I am treated well and receive a fair salary." By providing safe housing, fair compensation, and open communication the Magalhães family has created a welcoming environment for their employees.



Photo credit: Nespresso

Unfortunately, this is not always the case in Brazil. Protecting workers' rights is a national concern as high levels of poverty can often increase workers' vulnerability. To promote workers' rights, Nespresso and partners begin by assessing risks. Using guidance from labor rights platforms and certification organizations, Nespresso and partners use a Forced Labor Checklist to both train coffee farmers and assess their farms. In 2019, Nespresso trained 150 producers in Minas Gerais state on forced labor prevention and will train 300 more in 2020. Next, Nespresso and partners monitor practices on participating farms through internal and external inspections; a farm found to be noncompliant is then given time to take corrective action, but failure to correct these issues results in exclusion from the Nespresso Program. Nespresso is committed to protecting and promoting human rights within the coffee sector and will continue to strive for the eradication of both forced and child labor on Brazilian coffee farms.

## Looking Towards the Future

*"I enjoy helping more advanced farmers continue to improve their performance, but what I enjoy the most is assisting new farmers in the program; training them and guiding them towards social and environmental sustainability while using new technologies and good farming techniques."*

RHAFEL MARTINS GONÇALVES, NESPRESSO TRAINER, VALE DE GRAMA, BRAZIL

With assistance from Nespresso and partners, Brazilian coffee farmers have made significant strides on and off their farms, but there is still much work to be done. Issues related to agrochemical use and overuse, water conservation, and labor conditions remain pressing concerns for this coffee nation (see appendix). The Rainforest Alliance and Nespresso will continue to pursue interventions that improve the lives of farmers and the nature they live in and depend on.



A sign located at the Magalhães family farm reads "No hunting, no fishing." Photo credit: Rainforest Alliance

Brazil

Local geography: Minas Gerais, Espírito Santo, São Paulo

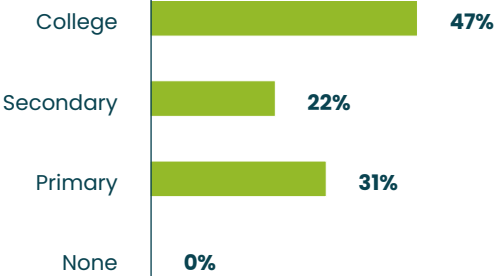


**"Lead Farmer"**  
90% male  
55 years old

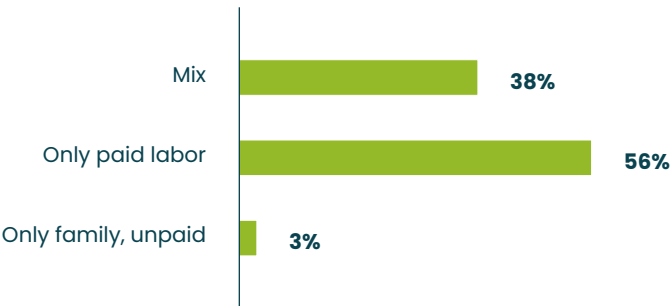


**54% of spouses**  
participate in  
coffee picking or  
other farm  
activities

Formal Education



Farm Labor Model

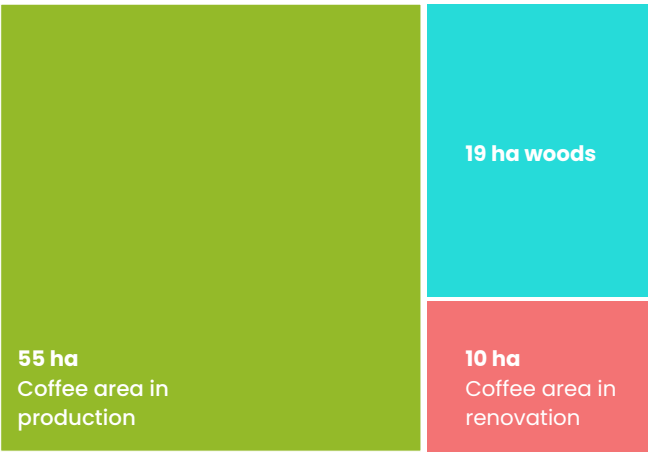


Approximately  
**89%** household  
income revenue  
from coffee



**69%** adult  
children  
participate in  
coffee activities

**Brazil  
median farm**  
84 hectares



Approximately  
**28%** Rainforest  
Alliance Certified



# Conclusion: Continued Innovation for Shared Value

*"I hope that one day my son continues the family tradition of coffee farming. I take my three-year old for walks on our farm to pick guavas or just see the coffee plants. Sometimes he will point and say, 'This part is my farm and that one is yours, Dad.'"*

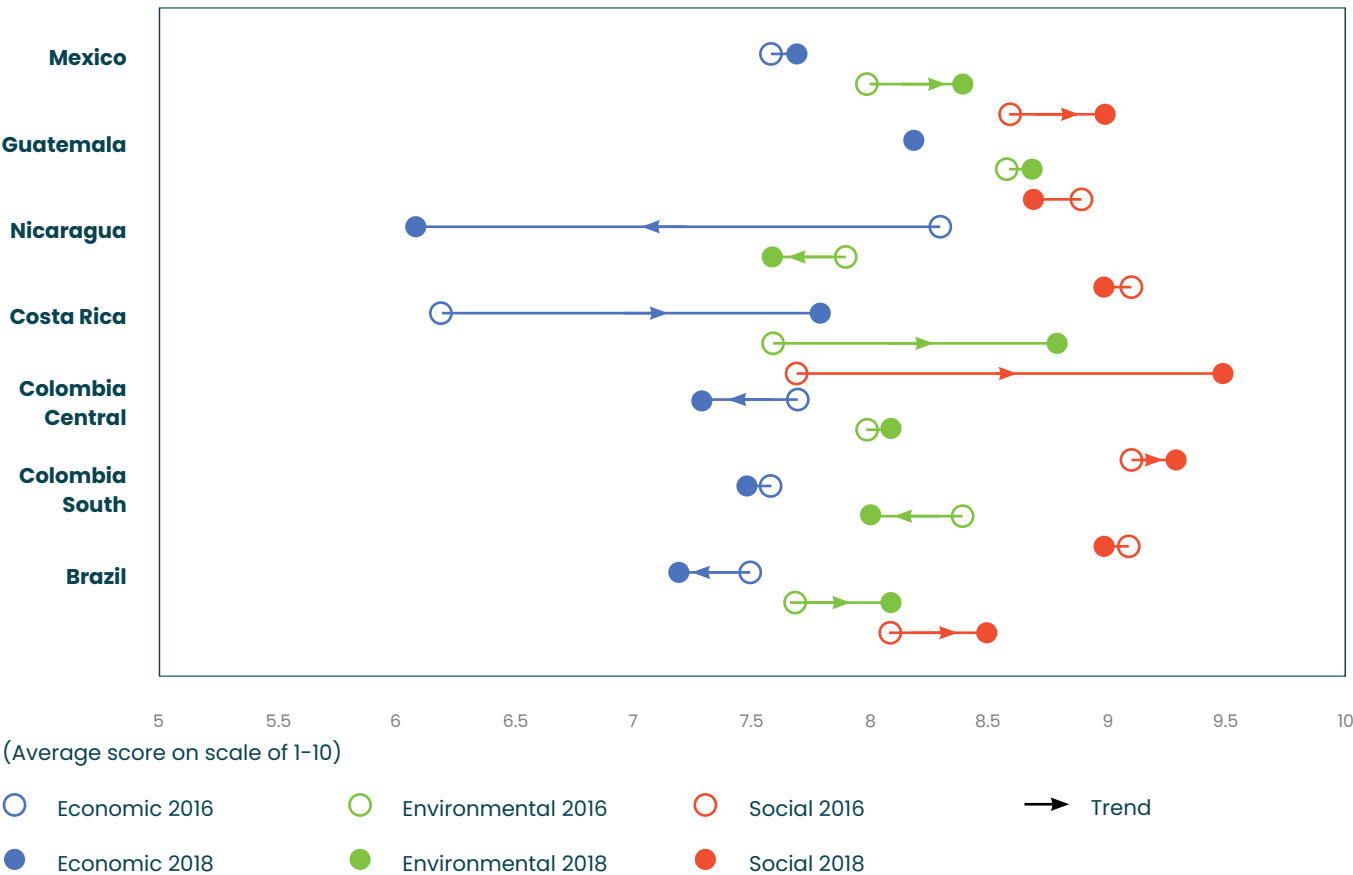
CARLOS HONORIO MORA CAMPOS, COSTA RICA

Nespresso and Rainforest Alliance have accomplished a lot over the years, as evidenced by the data and interviews collected within this report. This report highlights examples of farms with improved climate and regenerative coffee practices, decent working conditions, and increased market access. Accompanying data contained within this report demonstrates how farms have improved in key sustainability performance metrics. Many of these changes were made possible in part by the expert staff and trainers of both Nespresso and local traders, the guiding framework of the Rainforest Alliance and Fairtrade standards, the Nespresso AAA Sustainable Quality Program™ indicators, and the generous market incentives paid to farmers for Nespresso quality coffee.

Most of all, however, many of these changes are driven by the farmers themselves.

Through hard work and collaboration, farmers have improved their communities and ecosystems. While the data presented in this report shows that improvements have been made, it is far more significant to recognize that farmers see that their hard work is paying off. Indeed, the graph below shows farmers' perceptions of conditions over the past years with increases in some countries and a decrease only in Nicaragua following the 2018–2019 political crisis. In all countries, farmers are mostly positive about social relationships with workers and communities. From interviews with farmers, it is fair to reason that many of these perceived improvements come as a result of the work done by farmers, and support provided by Nespresso and its partners. For example, a combination of recordkeeping and access to premiums that often exceed market prices has enabled many of the interviewed farmers to invest in inputs that promote healthy yields, infrastructure that improves coffee quality, and other sources of income all of which contribute to improved financial wellbeing and economic perceptions.

Social, Environmental, & Economic Perceptions Over Time



While conditions have improved, challenges remain. Even with the expert technical assistance and the generous Nespresso price premium, many farmers are financially struggling. Economic perceptions are routinely ranked lower than other perceptions as low international coffee prices fail to cover costs of production (see graph). In some cases, this economic hardship can be remedied by improvements in coffee production and processing techniques. In other cases, the hardship is more systemic, and further innovation is needed. Here, Nespresso and Rainforest Alliance recognize that part of the solution entails helping farmers adapt, diversifying income streams, providing additional regenerative agriculture training, and exploring market alternatives such as payments for ecosystem services or “insetting”.

Despite these challenges, the future is still bright for coffee producers around the world. More than 2 billion cups of coffee are consumed per day, and Nespresso and Rainforest Alliance together reach about 150,000 coffee farmers and workers and their families. Stakeholders are increasingly recognizing the intertwined nature of coffee and climate, where regenerative, agroforestry coffee production is a climate remedy. New technology promises to further link the cup and the bean, enabling the livelihoods benefits to flow more directly from the consumer to the coffee farmer and worker. Nespresso and the Rainforest Alliance will continue working hard to make these dreams a reality.







This document was prepared by the Rainforest Alliance, 2020

# Appendix: Nespresso–Rainforest Alliance Monitoring & Evaluation System Methodology

*“It is both interesting and challenging to have data on sustainability performance. Analyzing and presenting the M&E data makes it easier to organize a constructive discussion with all our partners.”*

JUAN DIEGO ROMAN, NESPRESSO AAA REGIONAL MANAGER



Rainforest Alliance staff member, Mario Barboza (left) conducting field interviews throughout Jinotega, Nicaragua

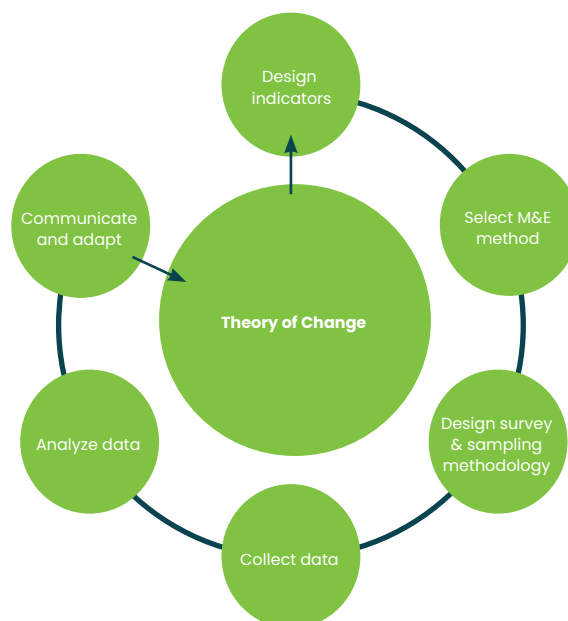
This report was prepared by the Rainforest Alliance in January–April 2020 and was built upon input from more than 50 conversations with Nespresso program staff, trainers, farmers, and other key stakeholders. Narrative content draws from these conversations which often took place directly on farms and in cooperatives, as well as more than eight years of monitoring and evaluation data.

The process to identify and collect the monitoring and evaluation data is described here:

**Theory of Change:** At the core of the Nespresso– Rainforest Alliance M&E System is the Theory of Change. Developed by Nespresso and the Rainforest Alliance, the Nespresso Theory of Change is used describe desired results and the key programmatic activities needed to attain these results.

**Design indicators:** Indicators, such as yield or compliance with a key risk criterion, are then developed to measure progress towards the sustainability goals of the Theory of Change.

**Select M&E method:** Once the indicators are designed, Nespresso and the Rainforest Alliance select the different tools to monitor and evaluate sustainability in their supply chain. Here we will describe the monitoring and evaluation “survey”



technique. Rainforest Alliance audits, internal Nespresso AAA audits, and expert interview are other techniques that are used.<sup>2</sup>

**Design survey and sampling methodology:** Rainforest Alliance and Nespresso developed a 100+ question survey to evaluate the indicators outlined in the Theory of Change, and then translated into Spanish and Portuguese. Farms are then randomly selected to a statistical threshold of 90% confidence interval and 10% margin of error, usually resulting in a sample of about 100 farmers per country. The total sample size for Latin America was 799 farms. Farms are stratified by Nespresso “cluster”, or farm group.

**Collect data:** Data collectors are trained for several days and directed by a supervisor. Data collectors usually visit 2–3 farms per day, and interviews usually take 2 hours. Interviews are conducted in Spanish or Portuguese, independent between the data collector and the farmer (or family member). M&E data was collected during 2016–17 (first round) and 2018–2019 (second round). Nespresso staff are not present during the M&E interview.



*Rainforest Alliance and partners used statistical sampling to randomly select approximately 900 farmers in seven countries to interview for this report*



**Analyze data:** The Rainforest Alliance reviews interview data, and then analyzes using statistical software. Due to the sample approach, data is usually presented as country averages (instead of totals). Medians are presented in cases where data distribution is not normal.

**Communicate and adapt:** Results are shared with Nespresso program staff and stakeholders and communicated publicly via reports such as these. Nespresso and trader group managers use data to inform training needs.

<sup>2</sup> In the Rainforest Alliance certification process, professional auditors annually visit a sample of member farms to evaluate compliance with the Rainforest Alliance standard. Compliance is scored on a pass/fail basis. Farms must meet a certain threshold to reach overall compliance for certification. Full audit reports are confidential, but a public summary can be accessed [here](#). See [here](#) for full certification rules.

*"I enjoy the feeling of beginning the trip to the farm, getting in the Jeep with the technical assistant, and knowing that I will visit a friendly face waiting to chat with me over a great cup of coffee"*

FELIPE MORA, RAINFOREST ALLIANCE STAFF  
AND FORMER AUDITOR IN COLOMBIA



A local farmer in Huehuetenango, Guatemala shows Rainforest Alliance staff members the work he has done to protect his crops and improve his farm.

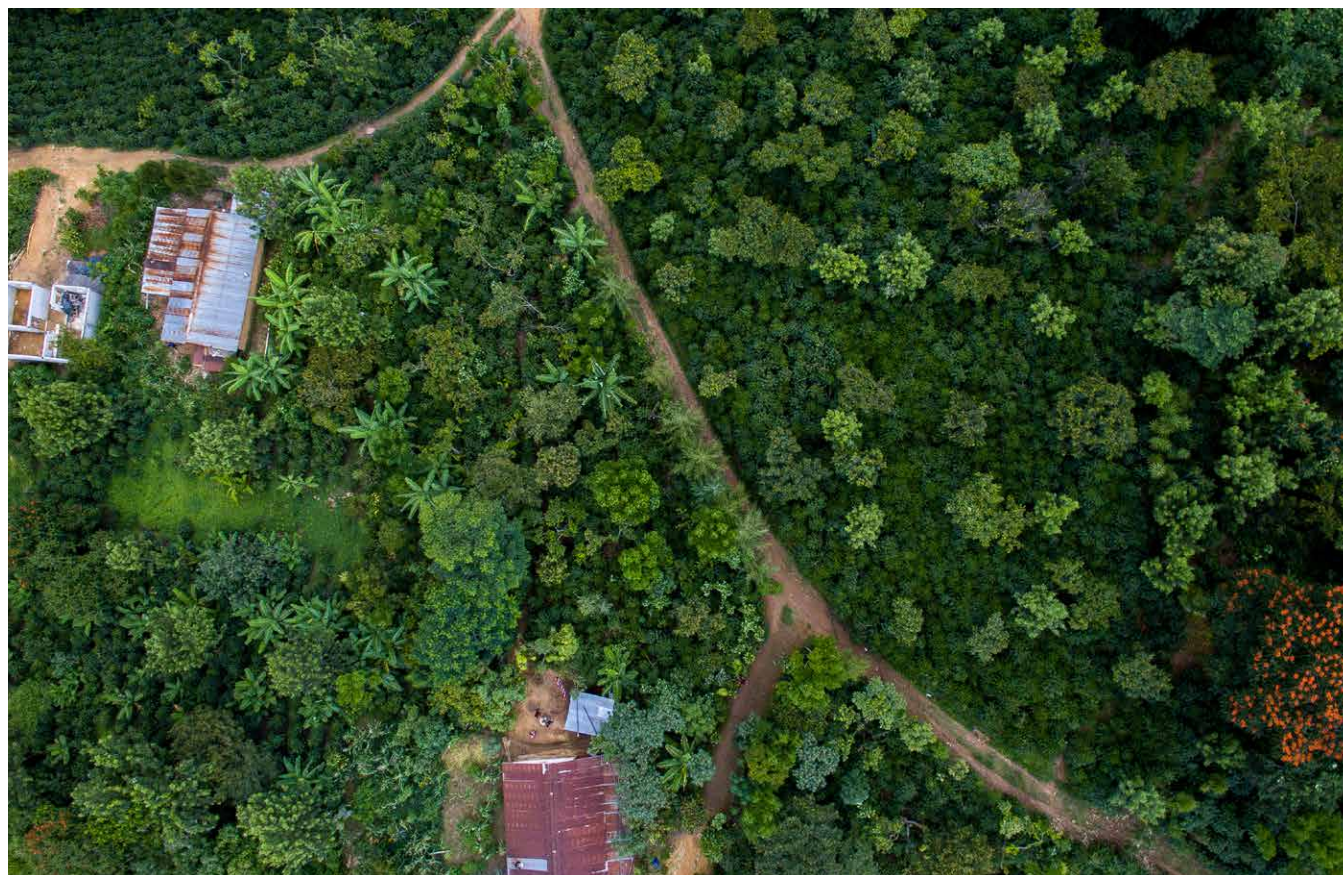


Photo credit: Tomas Mendez, PUR Project

# Appendix: Data

## Critical Areas

Farm characteristics data is presented with the most recent dataset (2018–19), with the red/yellow/green color coding. Performance metrics are presented with the most recent dataset and variation from the previous dataset. All values are sample averages unless noted otherwise, so should be interpreted for AAA country population as +/- 10%.



▲▲ increase of 20% or more ▲ increase of 10% or more ▼▼ decrease of 20% or more ▼ decrease of 10% or more

Compliance Levels	Mexico	Guatemala	Nicaragua	Costa Rica	Colombia Central Caldas, etc.	Colombia South Cauca/Nariño	Brazil
<u>AAA Social Critical Areas</u>							
potable water	▼ 79%	91%	▲ 100%	100%	94%	95%	100%
no forced labor	100%	100%	100%	100%	99%	100%	100%
no child labor	100%	100%	100%	100%	100%	100%	98%
agrochemical PPE (full use/good condition)*	▲ 12%	▼▼ 55%	▲▲ 75%	54%	▼▼ 42%	▼▼ 11%	45%
PPE “adequate” for the applied products	▲▲ 59%	100%	73%	▲ 93%	▲▲ 81%	▲▲ 67%	▲ 91%
<u>AAA Environmental Critical Areas</u>							
no deforestation	100%	▼ 89%	100%	97%	99%	99%	99%
no banned agrochemical products	100%	95%	95%	▼▼ 79%	96%	98%	▲ 79%
no captured wildlife	100%	100%	98%	98%	98%	99%	100%
no hunting	100%	100%	100%	98%	100%	100%	98%
protection of natural forests	▼▼ 76%	95%	95%	98%	99%	99%	96%
protection of natural water	93%	96%	98%	99%	88%	88%	95%

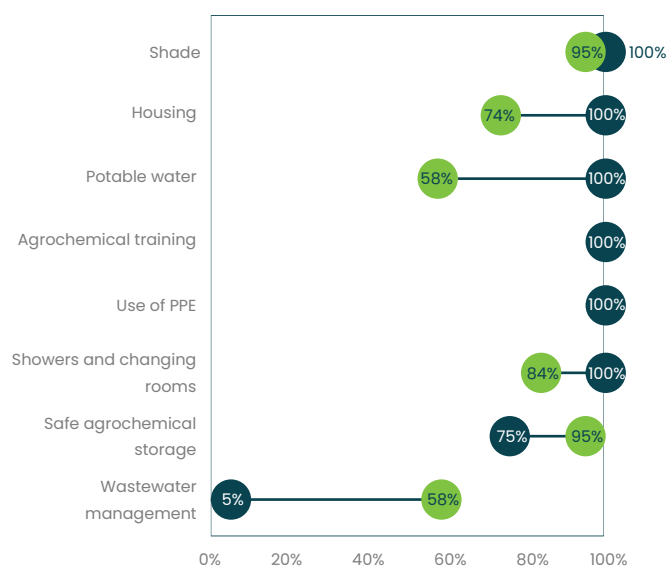
\* Aggregation of five PPE components (gloves, mask, overalls, boots, and goggles), in full use and in good condition. If the farm was missing one or more component, it was deemed “missing” and farm received “0.” Farms not using agrochemicals were excluded.



## Compliance with Rainforest Alliance Audits

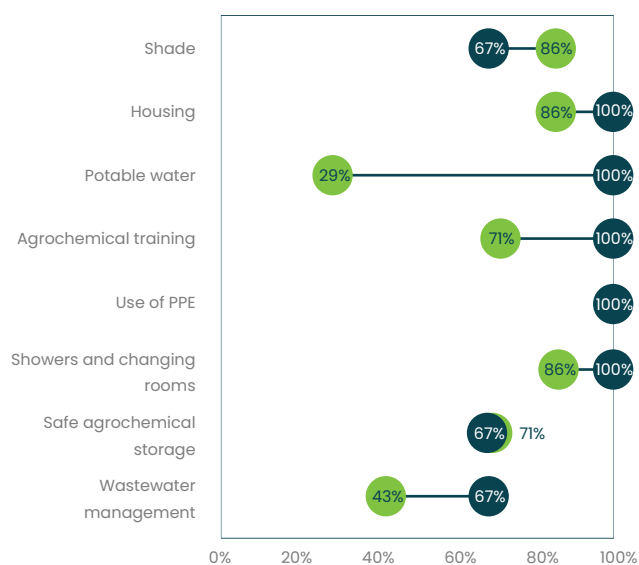
### Guatemala

2012/2013 Audit vs 2016–2017 Audit



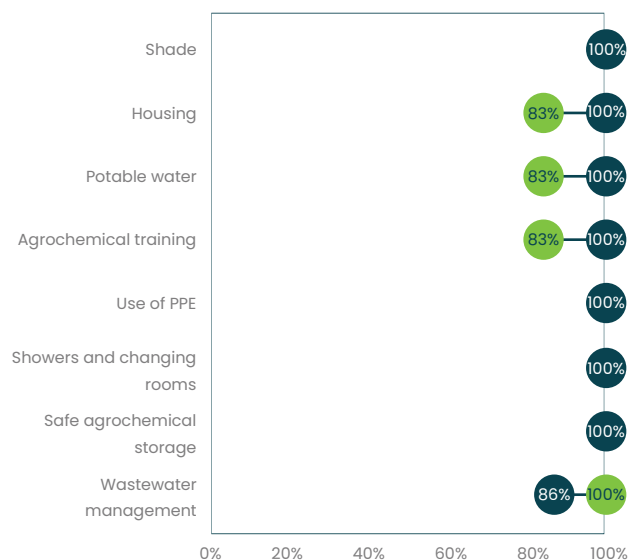
### Nicaragua

2012/2013 Audit vs 2016–2017 Audit



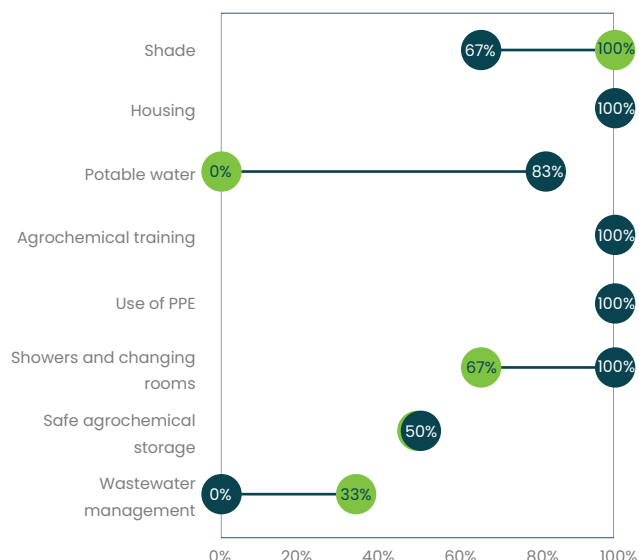
### Brazil

2012/2013 Audit vs 2016–2017 Audit



### Colombia

2012/2013 Audit vs 2016–2017 Audit



\* Data from RA audit reports 2012–2017; Each sample is one certified farm group; Scores represent compliance with selected criteria on the RA standard.

### Performance Metrics – AAA Social Non-Critical

Farm characteristics data is presented with the most recent dataset (2018–19), with the red/yellow/green color coding. Performance metrics are presented with the most recent dataset and variation from the previous dataset. All values are sample averages unless noted otherwise, so should be interpreted for AAA country population as +/- 10%.

&lt;60%

60–80%

&gt;80%

▲▲ increase of 20% or more ▲ increase of 10% or more ▼▼ decrease of 20% or more ▼ decrease of 10% or more

Compliance Levels	Mexico	Guatemala	Nicaragua	Costa Rica	Colombia Central Caldas, etc.	Colombia South Cauca/Nariño	Brazil
AAA Social Non-Critical							
proper agrochemical storage	▲▲ 58%	▲▲ 78%	▲▲ 98%	▲▲ 88%	49%	▼ 34%	▲ 62%
first aid kit	▲▲ 73%	93%	▲ 100%	88%	▲▲ 60%	▼ 63%	▲ 49%
worker training (≥ 2 topics)	▼ 19%	96%	80%	49%	▲▲ 64%	28%	▲ 59%
composite score	▲ 50%	89%	92%	75%	▲▲ 58%	▼ 42%	▲ 57%

### Performance Metrics – Environmental Non-Critical

Lowest compliance occurred for recycling programs, garbage disposal, and agrochemical wastewater treatment. Conversely, soil conservation practices had the fewest compliance related gaps (with the exception of farms in Mexico).

&lt;60%

60–80%

&gt;80%

▲▲ increase of 20% or more ▲ increase of 10% or more ▼▼ decrease of 20% or more ▼ decrease of 10% or more

Compliance Levels	Mexico	Guatemala	Nicaragua	Costa Rica	Colombia Central Caldas, etc.	Colombia South Cauca/Nariño	Brazil
AAA Environmental Non-Critical							
recycling program	14%	▼ 79%	▼▼ 30%	▼ 77%	60%	▼▼ 58%	38%
garbage disposal (municipal)	87%	25%	7%	▼ 79%	▲▲ 69%	44%	51%
milling ww treatment	N/A	93%	▲ 100%	N/A	▲▲ 49%	▼ 14%	60%
domestic ww treatment	▲ 94%	93%	95%	▲▲ 90%	▲ 42%	9%	▲▲ 64%
agrochemical ww treatment	▲ 21%	▲▲ 98%	▲▲ 95%	18%	▲ 29%	33%	▲ 45%
≥ 3 soil conservation practices	57%	▼ 61%	100%	▲ 93%	88%	▼ 79%	91%
composite score	55%	75%	71%	71%	▲▲ 56%	40%	▲ 58%



### Performance Metric – Pre-Harvest Practices

Across each country, the most frequent compliance related gap area was a lack of fertilizing at least 1,000 kgs/ha/year followed by the completion of a soil analysis (although nearly all farmers were applying some fertilizer).

&lt;60%

60–80%

&gt;80%

▲▲ increase of 20% or more ▲ increase of 10% or more ▼▼ decrease of 20% or more ▼ decrease of 10% or more

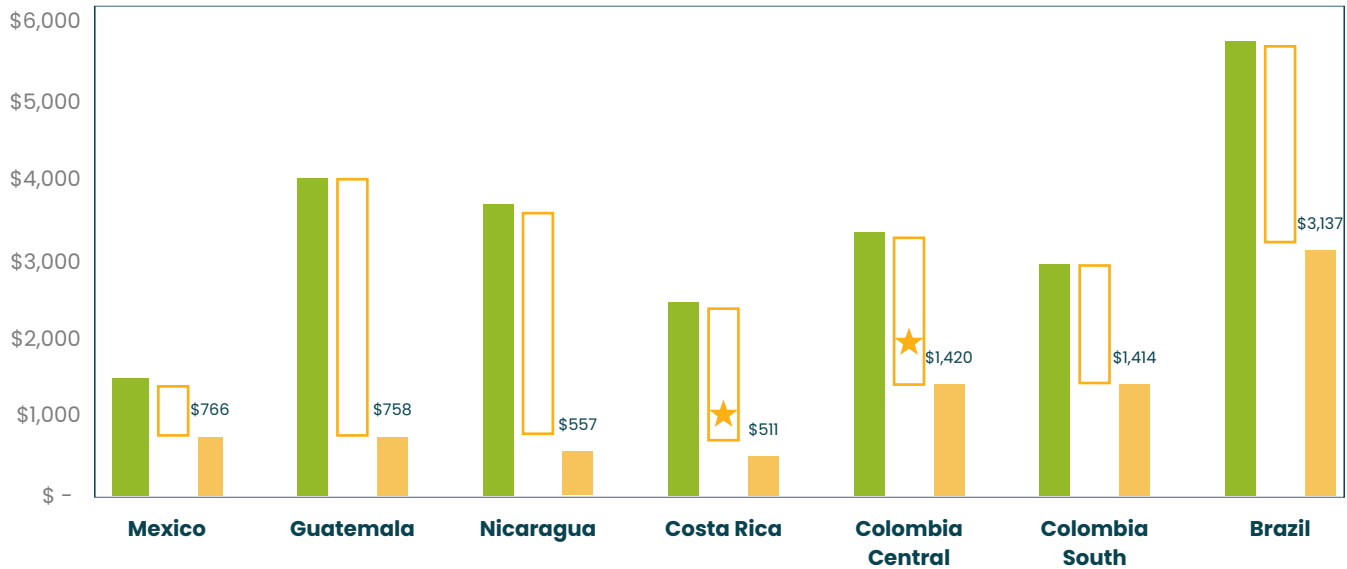
Compliance Levels	Mexico	Guatemala	Nicaragua	Costa Rica	Colombia Central Caldas, etc.	Colombia South Cauca/Nariño	Brazil
<u>Pre-Harvest Practices</u>							
no coffee rejected	96%	▼ 93%	100%	99%	▲ 83%	92%	74%
records maintained	96%	89%	100%	98%	64%	60%	76%
renovation (in past year, if applicable)	84%	▲▲ 63%	▼ 86%	60%	100%	▲▲100%	▼ 83%
applying fertilizer	96%	▼ 86%	98%	97%	98%	95%	100%
fertilizing >1,000 kgs/ha/year	12%	35%	▲ 50%	▲ 64%	▲▲ 59%	41%	▲ 94%
soil analysis for fertilizing	1%	39%	98%	▲▲ 76%	▲ 49%	27%	99%
technical recs for fertilizing	46%	▼ 86%	98%	▲▲ 86%	▲ 83%	75%	98%
fertilizing ≥2x/year	61%	▲ 86%	86%	89%	92%	90%	94%
<b>composite score</b>	62%	72%	89%	83%	78%	73%	90%

Performance: Coffee economics per hectare (~2018)

Net income ranges about **\$500–\$1,500 USD / ha**

Net income is about 25–50% of total revenue, but this does not account for unpaid (family) labor

**Coffee revenue – Production costs = Net income\*** revenue 2018 costs 2018 net income 2018  
(median USD / hectare of coffee)



Season	Early 2018	Early 2018	Early 2019	Early 2019	Early 2017	Early 2017	Mid 2018
Price USD / kg GBE	\$2.66	\$3.28	\$2.50	\$3.35	\$3.14	\$3.01	\$2.63
Cost USD / kg GBE	\$1.43	\$2.48	\$2.43	\$2.36	\$1.67	\$1.46	\$1.45

Coffee economics values are based on data collected through the Nespresso-RA M&E system, primarily self-reported by farmers (as described in Appendix: methodology). Values here represent a relatively small window of time (2017–2019), and are known to fluctuate over time. Values here present only coffee incomes, and do not include potential income from other crops and off-farm (coffee is usually estimated at 50–90% of household revenue; as shown in “region profiles”).

★ Reference data on costs of production is not consistent, but a 2019 ICO report found average cash costs = \$2,800 USD/ha in Costa Rica and \$2,400 USD/ha in Colombia I (higher than our findings)



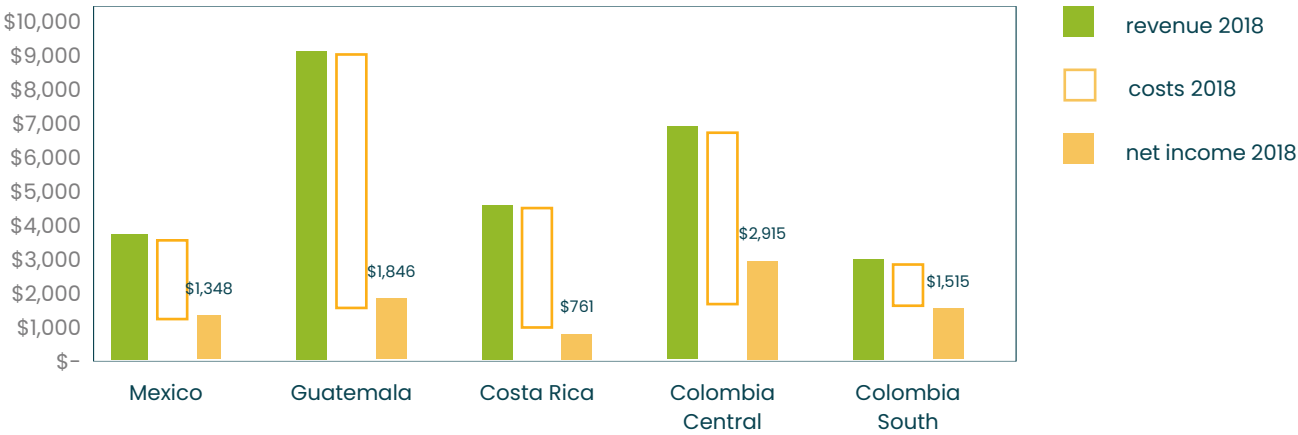
Performance: Coffee economics per farm (~2018)

When calculated for the farm, net income is only about \$1,000–\$3,000 for smallholders in Central America and Colombia due to 1–3 hectare farm sizes. We don’t have data on other income sources, but based on the reported % of income from coffee (50–80%), this makes for very low household income.

Plantations in Nicaragua and Brazil report revenues of \$200–300,000 USD and net income of \$30–170,000 USD

\* We won’t show the economics per farm over time due to the change in sample in many countries

Coffee revenue – Production costs = Net income\*  
(median USD /farm)

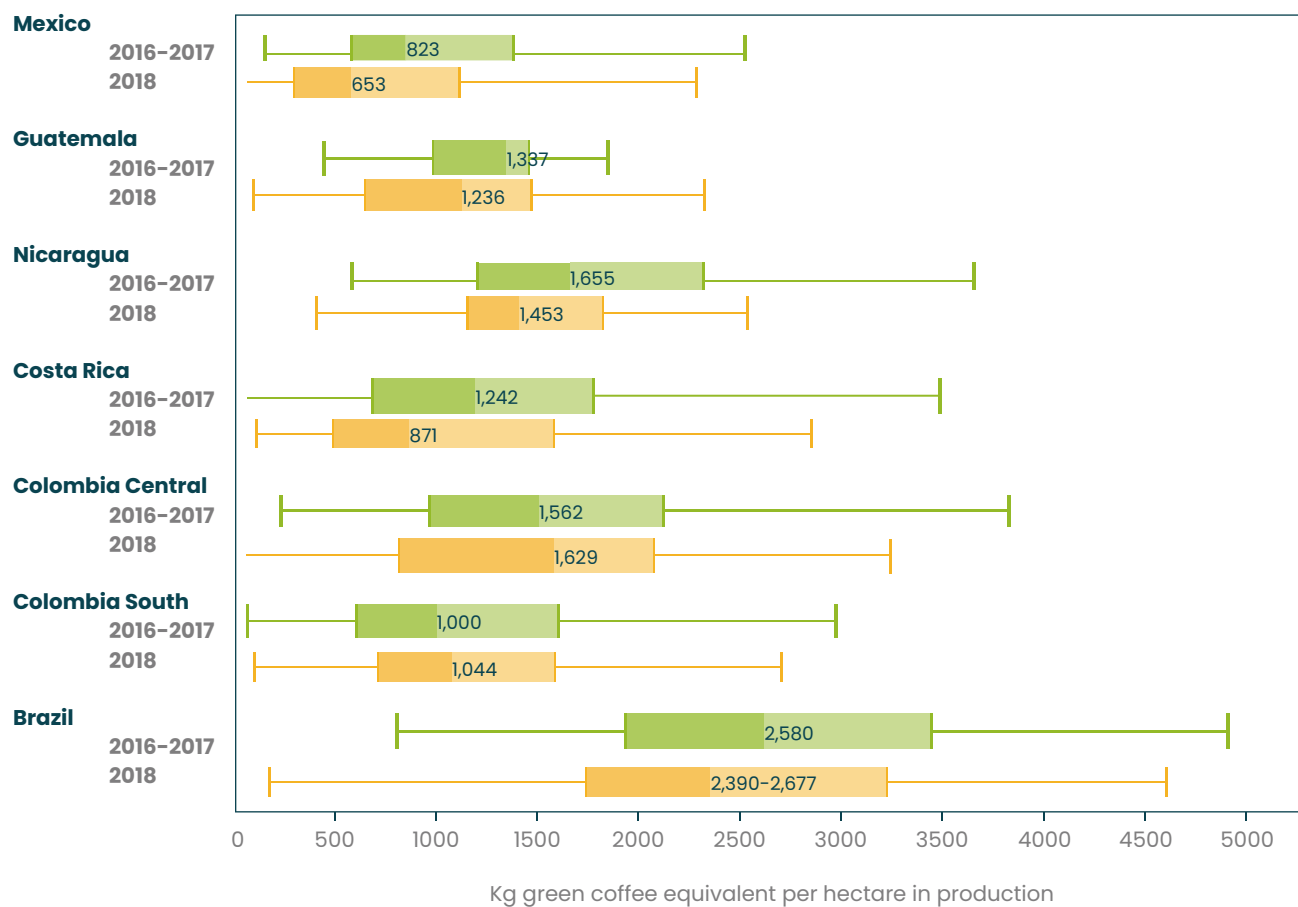


Season	Early 2018	Early 2018	Early 2019	Early 2019	Early 2017
Price	\$2.66	\$3.28	\$3.35	\$3.14	\$3.01
Cost/kg	\$1.43	\$2.48	\$2.36	\$1.67	\$1.46
% of income	50%	88%	52%	78%	80%

### Performance: Yield (2016–17 vs 2018–19)

#### *Difference/change over time:*

Yield naturally fluctuates from year to year, but appears to have dropped slightly in Central America.

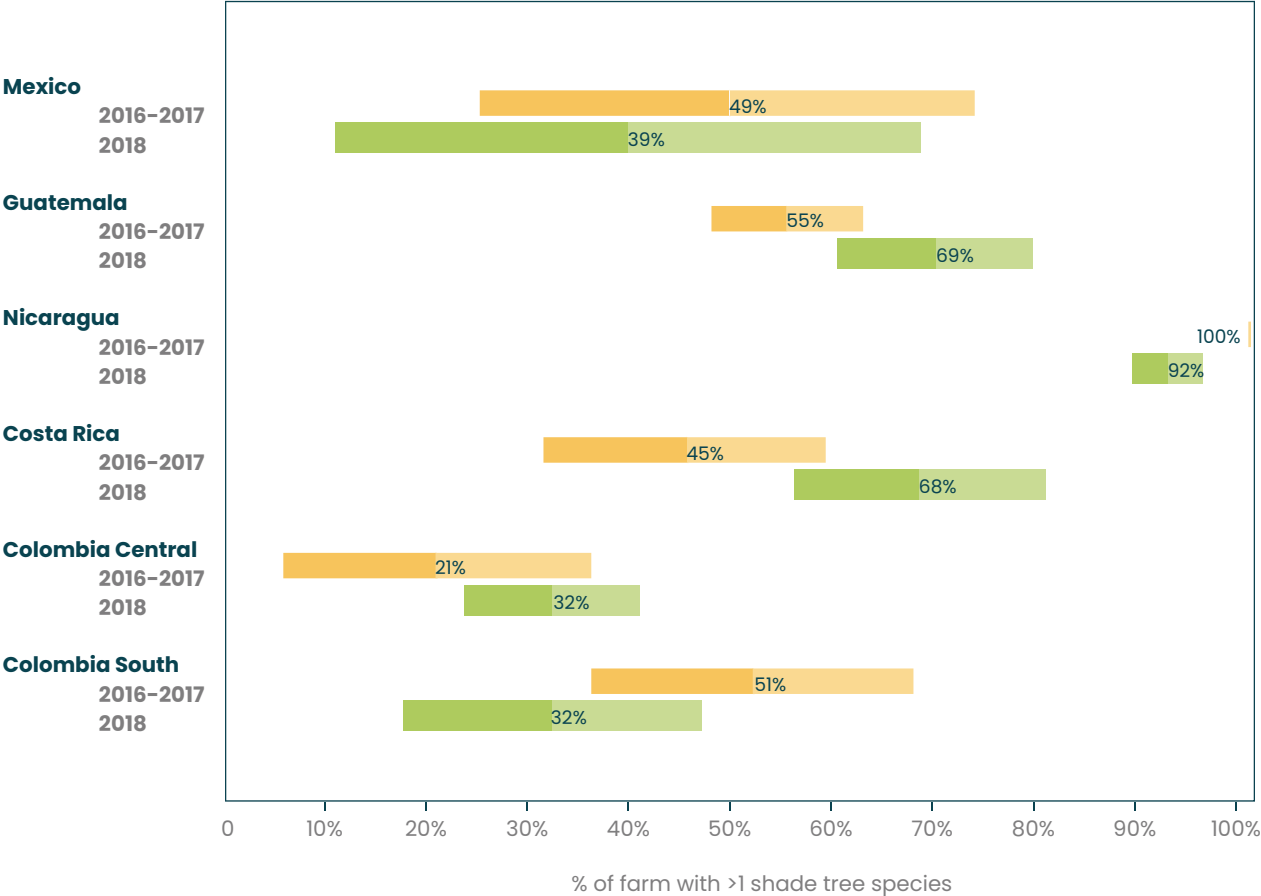




Performance: Shade (2016–2019)

**Difference / change over time:** We would not expect to see shade diversity change significantly over time, but we DO see a potential slight increase in shade in Guatemala and Colombia Central.

Shade Diversity by Country



# Endnotes

1. USDA Foreign Agricultural Service, Global Agricultural Information Network, *Guatemala Coffee Annual: Coffee farmers struggle with low prices, disease and weather*. Karla Tay. GAIN Report Number: GT2019005, 2019. Digital, [https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Coffee%20Annual\\_Guatemala%20City\\_Guatemala\\_5-15-2019](https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Coffee%20Annual_Guatemala%20City_Guatemala_5-15-2019)
2. Tye, Stefanie, and Delfina Grinspan. "Coffee Farmers in Costa Rica Are Brewing Up Solutions to Climate Change and Competition." World Resources Institute, December 2, 2019. <https://www.wri.org/blog/2019/09/coffee-farmers-costa-rica-are-brewing-solutions-climate-change-and-competition>
3. USDA Foreign Agricultural Service, Global Agricultural Information Network, *Guatemala Coffee Annual: Coffee international prices do not cover costs for small and medium size farmers*. Karla Tay. GAIN Report Number: GT2018005. 2018. Digital, [https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Coffee%20Annual\\_Guatemala%20City\\_Guatemala\\_5-9-2018](https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Coffee%20Annual_Guatemala%20City_Guatemala_5-9-2018)
4. Paulo de Leon, CABI, *The Importance of Coffee in the Guatemalan Economy and the Present State of its Productivity and Sustainability*, 2016. Quoted in USDA Foreign Agricultural Service, Global Agricultural Information Network, *Guatemala Coffee Annual: Coffee international prices do not cover costs for small and medium size farmers*
5. USDA Foreign Agricultural Service, Global Agricultural Information Network, *Nicaragua Coffee Annual: Coffee Production Predicted to Fall 15 Percent*. Jimmy Bolaños. GAIN Report Number: N/A. 2019. Digital, [https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Coffee%20Annual\\_Managua\\_Nicaragua\\_5-28-2019](https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Coffee%20Annual_Managua_Nicaragua_5-28-2019)
6. Kevin Sieff, "Falling Coffee Prices Drive Guatemalan Migration to the United States," *The Washington Post* (WP Company, June 11, 2019), <https://www.washingtonpost.com/world/2019/06/11/falling-coffee-prices-drive-guatemalan-migration-united-states/?arc404=true>
7. USDA Foreign Agricultural Service, Global Agricultural Information Network, *Costa Rica Coffee Annual: Coffee Production and Trade*. Victor Gonzalez. GAIN report Number: CS19010. 2019. Digital, [https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Coffee%20Annual\\_San%20Jose\\_Costa%20Rica\\_5-15-2019](https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Coffee%20Annual_San%20Jose_Costa%20Rica_5-15-2019)
8. de Jesús-Crespo, R., Newsom, D., King, E. G., & Pringle, C. (2016). "Shade tree cover criteria for non-point source pollution control in the Rainforest Alliance coffee certification program: A snapshot assessment of Costa Rica's Tarrazú coffee region." *Ecological Indicators*, 66, 47-54.
9. USDA Foreign Agricultural Service, Global Agricultural Information Network, *Nicaragua Coffee Annual: Coffee Production Predicted to Fall 15 Percent*.
10. Rainforest Alliance Monitoring and Evaluation Research
11. Marcela Ibanez and Allen Blackman, "Environmental and economic impacts of growing certified organic coffee in Colombia" *Resources for the Future Discussion Paper* (2015)
12. Ximena Rueda and Eric F. Lambin, "Responding to Globalization: Impacts of Certification on Colombian Small-Scale Coffee Growers," *Ecology and Society* 18, no. 3 (2013), <https://doi.org/10.5751/es-05595-180321>
13. Center for Regional Coffee and Business Studies (CRECE) "CRECE'S Monitoring & Evaluation Study on the Nespresso AAA Sustainable Quality™ Program in Colombia: Executive Summary" [Executive Summary] May 2013. [http://crece.org.co/wp-content/uploads/2017/02/Monitoring\\_and\\_Evaluation\\_Study\\_on\\_the\\_Nespresso\\_AAA\\_Sustainable1.pdf](http://crece.org.co/wp-content/uploads/2017/02/Monitoring_and_Evaluation_Study_on_the_Nespresso_AAA_Sustainable1.pdf)
14. Thomas Dietz, Andrew Estrella Chong, Janina Grabs, and Bernard Kilian, "How Effective is Multiple Certification in Improving the Economic Conditions of Smallholder Farmers? Evidence from an Impact Evaluation in Colombia's Coffee Belt." *The Journal of Development Studies*, (2019), 1-20
15. "NOTICIAS," Manos al Agua, accessed March 23, 2020, <http://manosalagua.com/widgets/gestion-inteligente-del-agua-gia>
16. Rena Effendi, "Securing a Livelihood for Generations of Coffee Farmers," *National Geographic*, April 11, 2019, <https://www.nationalgeographic.com/travel/destinations/south-america/columbia/partner-content-colombia-aguadas-securing-livelihood-generations-coffee-farmers/>
17. "Nespresso Joins Public-Private Partnership to Pilot an Innovative Retirement Program for Colombian Coffee Farmers," nespresso.com, accessed March 23, 2020, <https://www.nestle-nespresso.com/newsandfeatures/nespresso-joins-public-private-partnership-to-pilot-an-innovative-retirement-program-for-colombian-coffee-farmers>
18. Rainforest Alliance Monitoring and Evaluation Research
19. Rainforest Alliance Monitoring and Evaluation Research
20. Rachel Glickhouse, "Brazil Update: Historic Drought Takes Toll on Agriculture," *Americas Society and Council of the Americas (AS/COA)*, February 18, 2015, <https://www.as-coa.org/articles/brazil-update-historic-drought-takes-toll-agriculture>
21. Corey Watts, "A Brewing Storm: The climate change risks to coffee" *The Climate Institute*. 23, (2016). [http://www.climateinstitute.org.au/verve/resources/TCI\\_A\\_Brewing\\_Storm\\_FINAL\\_WEB270916.pdf](http://www.climateinstitute.org.au/verve/resources/TCI_A_Brewing_Storm_FINAL_WEB270916.pdf)
22. Purnamita Dasgupta, John F Morton, et al. "Rural areas Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change ed CB Field et al." *Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA* (2014): 613-657.
23. "Advancing the Human Rights of Rural People," Rainforest Alliance (Rainforest Alliance, January 22, 2020), <https://www.rainforest-alliance.org/articles/advancing-the-human-rights-of-rural-people>
24. "Nespresso e SOS Mata Atlântica Se Unem Para Restaurar a Floresta," *SOS Mata Atlântica*, accessed March 23, 2020, <https://www.sosma.org.br/noticias/nespresso-e-sos-mata-atlantica-se-unem-para-restaurar-floresta/>
25. Rainforest Alliance Monitoring and Evaluations Research



**Lead Authors**

Matthew Bare  
William Crosse  
Aviela Hochberg

**Data Analysts**

Matthew Bare  
Erika Seidenbusch

**Field Researchers**

Katell Mahieu  
Matthew Bare  
Aviela Hochberg  
Mario Barboza  
Milagro Espinoza

**Designer**

Carmen Quang

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**NESPRESSO®****Contact**

Nestle Nespresso S.A.  
Sustainability and Corporate Communications  
Avenue de Rhodanie 40  
CH-1007 Lausanne  
Switzerland  
Telephone: +41 21 796 9696

**United States:**

125 Broad Street, 9<sup>th</sup> Floor  
New York, NY 10004  
tel: +1 212.677.1900

**The Netherlands:**

De Ruyterkade 6  
1013 AA, Amsterdam  
tel: +31 20 530 8000

[rainforest-alliance.org](http://rainforest-alliance.org)

