

NESPRESSO

AAA Sustainable Quality™ Program in Ethiopia and Kenya Impact Assessment Report 2013-2021

Towards Resilient Communities and a Living Income for Smallholders



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Our Partnership

Business as a Force for Good

Arabica coffee originated in the forested hills of East Africa, and today the crop sustains millions of farming families across the region. While coffee has a long and illustrious history in Ethiopia and Kenya, Nespresso and TechnoServe are committed to ensuring that it has an even brighter future.

This commitment to the people and communities that produce the world’s coffee is at the heart of what we do. As laid out in Nespresso’s Positive Cup roadmap, sustainability—environmental, social, and economic—is central to the company’s approach. International nonprofit TechnoServe, meanwhile, bases its approach on the idea that harnessing the power of the private sector can create scalable change that generates lasting prosperity in communities.

It is with this shared vision that Nespresso and TechnoServe came together in 2013 to bring the Nespresso AAA Sustainable Quality™ Program to Kenya and Ethiopia. Since then, we have worked to help farmers earn a living income, boost their resilience, and improve the social and environmental sustainability of their farms and businesses.

We are proud to present this report, which highlights how we’ve worked to tackle these challenges, what we’ve accomplished, and what’s still to come.



Guillaume Le Cunff
CEO, Nespresso



William Warshauer
CEO and President, TechnoServe



The Program’s staff works on the ground with farmers to improve livelihoods, boost resilience, and ensure social and environmental sustainability.

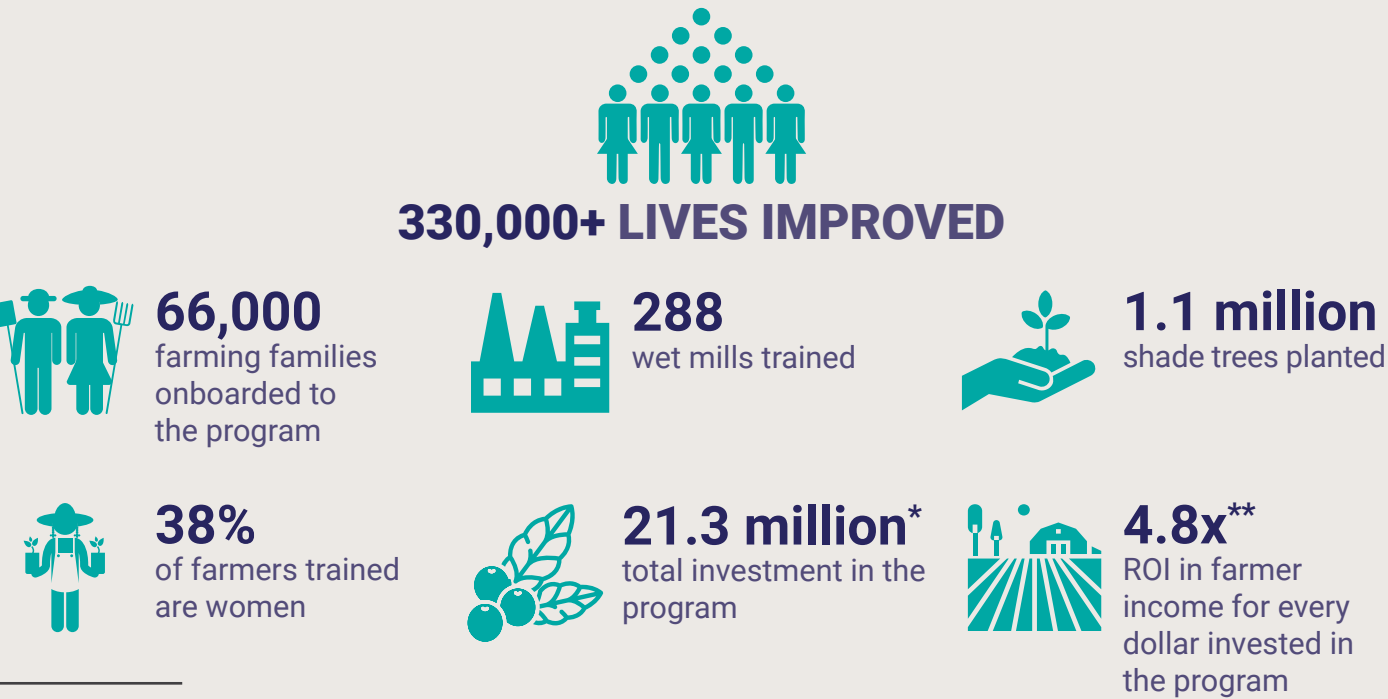
Executive Summary

Across Ethiopia and Kenya, millions of farmers working very small and low yield plots of land, produce some of the world’s finest coffee. But these farmers often struggle to earn enough to cover their families’ basic needs, and their livelihoods are threatened by climate change and environmental degradation.

Since 2013, Nespresso and TechnoServe have brought the AAA Sustainable Quality Program to Ethiopia and Kenya in order to help farmers earn a living income and to build the resilience of coffee-growing communities. Given the specific nature of the coffee trading model in Kenya and Ethiopia, with limited traceability to farm and limited opportunity to build direct relationships with coffee producers, the Program has worked at two levels in pursuit of this goal: at wet mills and on farms with the producers belonging to the communities. On farms, AAA agronomists have provided regenerative agronomy training, helping coffee growers learn techniques to sustainably increase their yields and help restore natural resources in their communities. The Program has also worked with private and cooperative wet mills—local processing facilities that form a vital link in the coffee value chain—to improve the quality of the coffee they processed and operate in a more efficient and transparent way helping farmers to become Nespresso AAA suppliers and earn better incomes. The support to the wet mills has also helped them to improve the environmental and social sustainability of their operations.

The AAA Sustainable Quality Program has worked to ensure that the coffee value chain is more inclusive and provides greater opportunity for women farmers, workers, and cooperative leaders. The Program has also engaged with a number of stakeholders to make the ecosystem more supportive to smallholder coffee farmers.

Figure 1: Program Impacts and Investments in Ethiopia and Kenya, 2013-2021



*\$15.4 million from Nespresso, \$4.9 million in co-funding
**2013-2020

Looking ahead, Nespresso and TechnoServe are committed to deepening this impact and identifying new levers to help farmers earn a living income and build resilience.



Section One

Coffee Sector in Kenya and Ethiopia

Wet mills, such as this one in Ethiopia, are an important part of the coffee supply chain in East Africa.

Structure of Coffee Sector

In Ethiopia and Kenya, most of the coffee is grown by millions of smallholders working tiny plots of land, with the export crop processed off the farm at cooperative or privately owned wet mills.

There are more than two million smallholder coffee farms in Ethiopia and more than 500,000 smallholder coffee farms in Kenya, growing coffee on often tiny plots of land. Coffee farming is often passed down from generation to generation, and in many cases, spouses work side-by-side on coffee plots to harvest the crop and tend to their coffee trees.



Because the volume of coffee produced on each farm is quite low, smallholder farmers in the region sell their coffee to intermediaries who aggregate production from a number of farms, rather than selling directly to an exporter. In Kenya, most farmers sell their freshly harvested coffee cherries to cooperatives. These cooperatives operate wet mills, which process the cherries into parchment coffee and sell it to exporters. In Ethiopia, farmers in many regions sell most of the coffee cherries to private wet mills or to cooperatives and dry a smaller segment of their coffee at home.



- Program Interventions**
- Training on productive, regenerative practices
 - Improved farm record-keeping
 - Equitable decision-making in households
 - Access to shade and fruit tree seedlings

- Program Interventions**
- Training for wet mill staff on proper processing for high-quality coffee
 - Social and environmental sustainability practices
 - Inclusive business

Table 1: Adapting the AAA Sustainable Quality Program to East Africa

	Location	Farmer profile	Wet milling	AAA program focus
	Colombia	1.4 hectares 1,200 kg per hectare 1,176 kg per farmer	Performed at home by farmer	AAA sustainability and quality focus at farmer level
	East Africa	0.25 hectares 400 kg per hectare 100 kg per farmer	Performed centrally at wet mill (private or cooperative)	AAA sustainability and quality focus at farmer and wet mill level

Properly run, cooperative or privately owned wet mills are vital for enabling smallholder farmers to earn higher prices for their coffee—but many wet mills face operational, business, and sustainability challenges. As a result, these wet mills often operate far under capacity or produce coffee that does not meet high quality standards, depriving farmers of more lucrative market access.



Coffee growers must perform different tasks on their farms throughout the year, and a production calendar can help.

Drivers of Poverty

Smallholder farmers in Ethiopia and Kenya face the interconnected challenges of shrinking farm sizes, low yields, and meager incomes.

A growing population has caused farms to be subdivided into smaller plots—with average coffee farms measuring just 0.75 ha in Ethiopia and 0.16 ha in Kenya—which limits the potential size of the harvest. This is exacerbated by the low productivity on the region’s farms: average yields are currently about one-third of what could be achieved through the adoption of simple, low- or no-cost regenerative farming practices. For example, the advanced age of coffee tree stems is one of the leading drivers of low productivity, but the adoption of rejuvenation is quite low, which caused the Program to prioritize it in the training curriculum. As a result of these challenges, smallholder coffee farmers often fall far short of earning a living income, which in rural areas of Ethiopia can range from \$1,450 to \$1,850 per year. Farmers with average farm sizes can earn a living income if they adopt regenerative farming practices.

Calculating a living income

The Living Income Community of Practice defines a living income as: “The net annual income required for a family in a particular place to afford a decent standard of living for all members of that family.”¹ Calculating a living income benchmark therefore requires knowing specific features of a particular place, such as the local prices of essential items and average family size.

Both of these factors can vary significantly between different regions of a country and between urban, peri-urban, and rural environments. While the Global Living Wage Coalition developed a national benchmark of \$2,000 for Ethiopia (as of 2021), this figure did not fully reflect the situation of farming families in coffee-growing areas. To calculate more appropriate, localized benchmarks for the rural Ethiopian communities where the AAA Sustainable Quality Program works, TechnoServe staff collected data on family size and visited local markets and shops to record the prices of essential items. Following the Anker Methodology², the Program calculated living incomes for rural communities in two regions. Reflecting the reduced cost of living, the benchmarks—\$1,812 for West Guji and \$1,450 for Sidama, as of 2021—are lower than the Global Living Wage Coalition’s national estimate.

Social Challenges

The coffee sector in Ethiopia and Kenya must also confront important social challenges related to gender inequality and the treatment of workers.

In particular, wet mills—which provide important sources of rural employment, especially as farms in the region hire little labor—often struggle to implement good labor practices. Some processing facilities have failed to comply with regulations related to wages and the avoidance of child labor.

1 From Global Living Wage Coalition: <https://www.globallivingwage.org/about/living-income/>
2 The Anker Methodology, named after its creators Richard and Martha Anker, is one of the most widely used approaches for calculating a living wage. More information is available: <https://www.globallivingwage.org/about/anker-methodology/>

Environmental Threats

Farmers’ incomes are vulnerable to the impacts of climate change and environmental degradation, while unsustainable coffee production can itself degrade natural resources.

Coffee production relies on predictable weather patterns, good soil, and access to clean water. Changes to the climate and natural environment threaten to reduce both the volume and quality of coffee produced by Kenyan and Ethiopian farmers.

Unsustainable coffee production can also threaten vital natural resources. Aging wet mills in Ethiopia, for example, can use large volumes of river water and emit polluted wastewater back into waterways. Over tilling and low adoption of composting, mulching, erosion control, and shade trees can cause soil degradation while overuse of agrochemicals in Kenya can reduce biodiversity. While coffee production by smallholders in the region has not led to significant deforestation historically, there is a risk that the expansion of production (rather than increases in yields on existing farms) could threaten protected forest biospheres, particularly in Ethiopia.

Gender Inequality

10 Women perform vital work at all levels of the coffee value chain but
11 lack equal access to training, inputs, services, and opportunities for advancement.

In a gender analysis produced by Nespresso and TechnoServe in 2018, women cited a number of barriers to greater participation in the coffee value chain, including the need to spend time on other paid and unpaid work, the small size of their farms, a lack of access to capital for investment, and limited knowledge of key skills for coffee production.

The challenges are not only confined to the farm level. Women are far less likely than men to be members of cooperatives or to attain positions of leadership within cooperatives. As a result, these vital organizations often fail to adequately consider and address the needs of women coffee farmers and workers.

Figure 2: Women’s Participation in Cooperatives



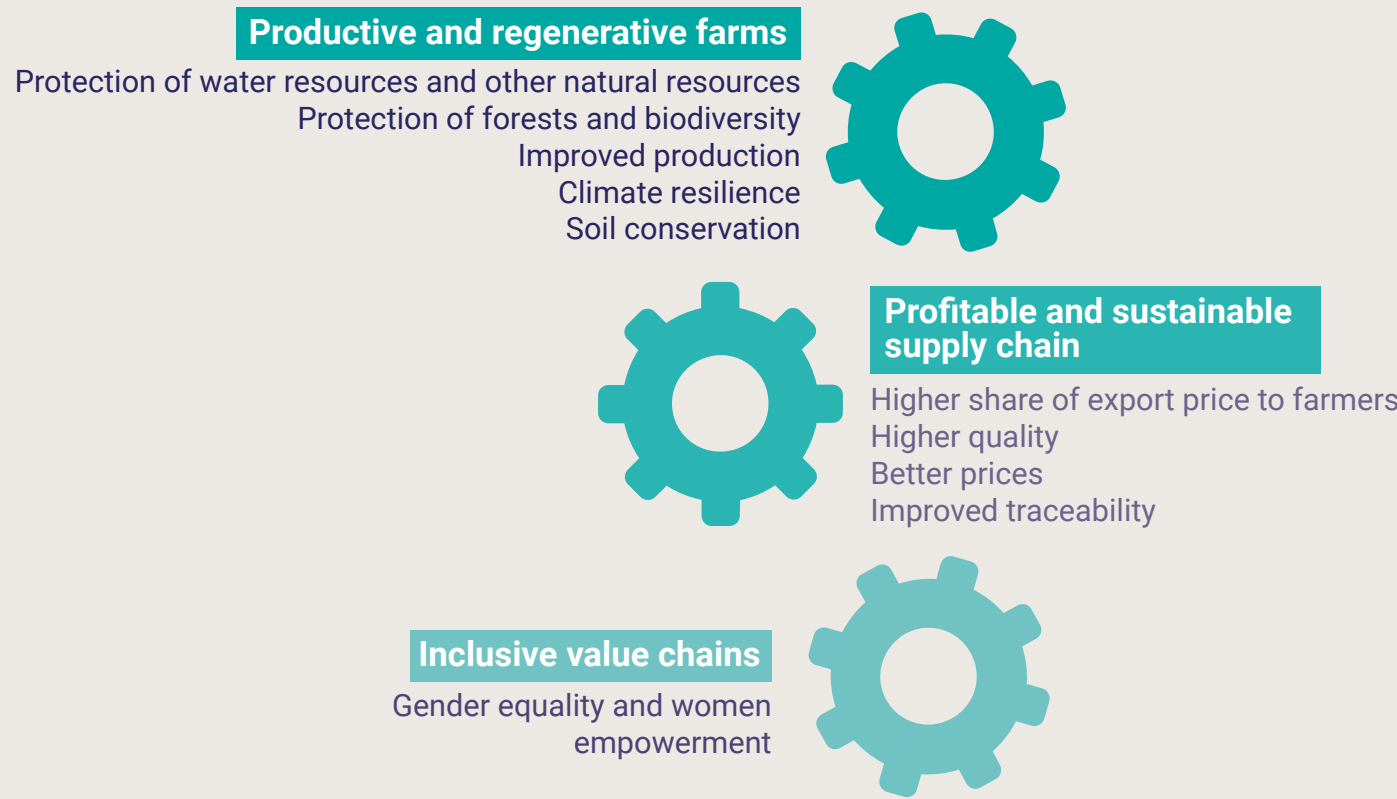
The Opportunity

With the right efforts and investments, the coffee sector in Ethiopia and Kenya holds the potential to help millions of people build better futures by increasing farmer incomes, improving sustainability and inclusion, and creating opportunities across the value chain.

With the adoption of good, regenerative agricultural practices, farmers can dramatically increase their yields and make their farms more resilient to climate shocks and other disruptions, and smallholders and processors can turn coffee production into a vehicle for restoring natural resources and combatting climate change. Improved social sustainability practices can help processing facilities live up to their potential as engines of employment and inclusive economic opportunity in rural communities. Stakeholders and actors across the sector can work to ensure gender equality across the value chain.

The goal of the AAA Sustainable Quality Program is to drive this change.

Figure 3: Ways to Improve Farmer Incomes, Resilience, and Sustainability





Section Two

How the AAA Sustainable Quality Program Supports
a Living Income and Regenerative Agriculture

Farmers in Kenya receive agronomy training through the AAA Sustainable Quality Program.

Launched in 2013, the AAA Sustainable Quality Program in Ethiopia and Kenya aims to improve farmer incomes, increase the volume of high-quality and sustainably produced coffee sourced from cooperatives, and support the conservation of natural resources in coffee-growing regions.

The AAA Sustainable Quality Program has pursued these goals by working at two vital levels of the supply chain: the farm and the central wet mill.

Productive and Regenerative Coffee Farms

The AAA Academy uses a hands-on approach to train groups of farmers on regenerative agricultural practices.

Because of the large number of farmers involved, the AAA Academy uses group training to build the skills of coffee growers. To deliver this training, agronomists are recruited from the same regions and communities where they work, and they often come from coffee-growing families. They understand the lives of farmers and can easily relate to them, leading to greater trust.

14 Since 2013, the AAA Sustainable Quality Program has supported 66,000
15 coffee farming households in Ethiopia and Kenya, directly impacting the lives of more than 330,000 women, men and children.

More than 46,000 coffee farming households have participated in an intensive two-year training curriculum focused on supporting them to raise the quality and size of their coffee harvests through a suite of regenerative agricultural practices that also help protect against the destabilizing effects of climate change.

The AAA Program has focused on building up farmer knowledge and driving adoption of a set of regenerative, low-carbon, nature-based agricultural practices that can simultaneously improve farm profitability while delivering positive impacts on the environment.

Table 2: Regenerative Practices Supported through the Program

Soil health	Biodiversity	Crop resilience	Livelihoods
<ul style="list-style-type: none">Erosion controlCompostingSoil correctionMulchingWeed management	<ul style="list-style-type: none">Shade managementIntegrate pest and disease management	<ul style="list-style-type: none">NutritionRejuvenation and pruning	<ul style="list-style-type: none">Record keepingSavings (Ethiopia)

These low- or no-cost practices improve the productivity and profitability of farms, while making them more resilient to climate impacts. For example, mulching helps to protect soils from erosion and regulates temperatures so that coffee plants can thrive in the face of drier weather.

What does resilience mean?

Resilience refers to the ability of a community to resist, adapt, and overcome challenges.

In providing training about the economic and environmental benefits of growing coffee under shade, as well as facilitating access to seedlings, the Program helped participating farmers plant 1.1 million indigenous shade trees between 2017 and 2020.

Impact of Training

Through participation in the AAA Program, farmers who adopted practices have increased their coffee incomes by up to 250% and applied regenerative agricultural techniques to tens of thousands of hectares.

Farmers who adopted most of the farming practices in Kenya increased their coffee incomes by 250%, and farmers in Ethiopia who partially rejuvenated their farms saw an increase of up to 60% in their coffee incomes (if farmers fully rejuvenated their farms, they could expect a 2.5-fold increase in their production). The program dramatically increased the adoption of many practices, including a 19-fold increase in rejuvenation through stumping in Ethiopia. In total, farm-level interventions have helped participating farmers earn an additional \$7.1 million per year, representing an ROI of more than 4:1 on the initial investment.

Figure 4: Increase in Adoption of Regenerative Practices Leads to Return on Investment



SUCCESS STORY

Farmer James Kinyua Kamanjiri

In 2017, James Kinyua Kamanjiri and Lucy Wacuka prepared for an ordinary year of tending to their 270 coffee trees, maintaining as many stems on their trees as possible. “By April, the heavy flowering on my farm was a sign, and I hoped for 1,000 kilograms of [coffee] cherry,” James recalled, “but by July, my whole crop dropped to the ground.” The couple’s farm was hit hard by coffee berry disease (CBD), a devastating fungal infection that is becoming more common as the climate becomes warmer and more humid.

Having invested \$250 to purchase fertilizers and agrochemicals, James and Lucy harvested only 100 kg of cherry that year, and the couple failed to recoup what they had invested.

After that disappointing harvest, James joined the AAA Sustainable Quality Program, where he learned improved agronomy practices, like mulching and composting. He learned that coffee trees resist disease and produce more when they just have a few stems, so he trimmed back the rest. He was most surprised when he learned that his rigorous application of calcium ammonium nitrate—widely promoted to improve coffee yields—was a likely factor contributing to the high incidence of CBD he experienced in 2017. He altered his coffee nutrition regimen by opting for the agro-inputs recommended by the AAA agronomist, which resulted in both \$100 in savings on fungicides and improved cherry production.

After only producing 100 kg of cherry in 2017, James and Lucy’s yields increased dramatically in 2018, when they produced 1,160 kg of cherry. By 2020, James and Lucy harvested 1,800 kg of cherry, earning \$1,300 in net income.

Since James is managing fewer coffee stems, he also has more free time, which he dedicates to tending to his vegetables. With the family’s extra money, James and Lucy have renovated their house by building an extension for the kitchen and tiling the floor. Lucy was particularly happy with the floor because it was very easy to clean. With some of the money, James and Lucy helped pay the school fees for two of their grandchildren and invested in vegetable farming to further diversify the family income.



Profitable and Sustainable Supply Chain

The AAA Sustainable Quality Program has worked with 288 wet mills to help these vital links in the coffee supply chain improve their production, environmental sustainability, and social responsibility.

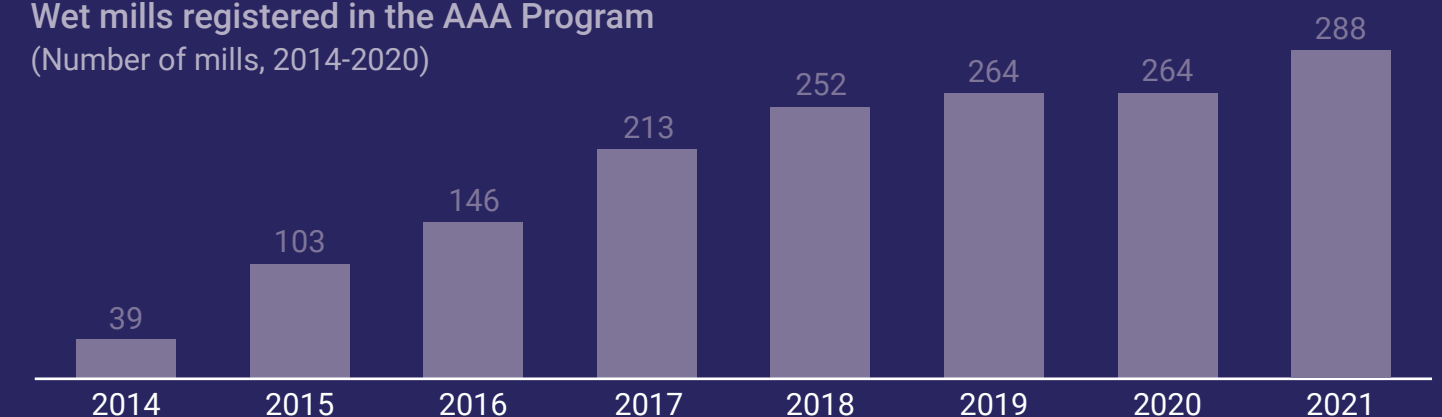
AAA Sustainable Quality Program business advisors work hand-in-hand with the management and staff at wet mills to identify challenges, provide training and support to overcome them, and help measure the performance of the mills across a number of sustainability metrics.



The AAA Sustainable Quality Program has supported cooperative wet mills to ensure that farmers receive the largest possible share of the coffee’s export price, working conditions are aligned with local and international standards (as defined by the International Labor Organization), and natural resources such as water are protected. Over the past seven years, the AAA Program has worked with 161 wet mills in Kenya and 127 in Ethiopia to improve the quality of production and sustainability and become AAA suppliers.

Figure 5: Wet Mills Registered, 2014-2021

Wet mills registered in the AAA Program
(Number of mills, 2014-2020)



Improving Quality

AAA business advisors work with wet mills to help produce high-quality coffee.

A number of relatively common processing errors can ruin the quality of a coffee lot, depriving farmers of vital income and disrupting supply. To ensure that the coffee’s original quality is not lost in processing, AAA business advisors have provided training to management and staff at wet mills on subjects like cherry sorting, proper fermentation and drying of the coffee, storage, and keeping equipment clean and well-maintained.

Ensuring Sustainable Processing

The AAA Sustainable Quality Program has helped wet mills adopt a suite of socially and environmentally sustainable practices.

Business advisors have sensitized wet mills to the importance of paying day laborers the minimum wage, enforcing zero tolerance for discrimination or workplace abuse, eliminating child labor, and following other labor standards.

The Program has also worked to address environmental challenges at the processing facilities. In some areas covered by the AAA Sustainable Quality Program, aging wet mills frequently use large volumes of river water in processing, and then discharge wastewater contaminated with decomposing coffee pulp back into rivers. AAA Sustainable Quality Program business advisors worked with the wet mills to reduce their water usage, and where necessary, plant vetiver grass wetlands to prevent contamination of river water.

Using Vetiver Grass to Fight Water Pollution

Vetiver is a grass from South and South East Asia, and its deep roots have meant that farmers around the world have long planted it to help fight soil erosion. Those deep roots, as well as the grass’s tolerance for pollutants, also make vetiver effective at filtering waste water, which inspired the AAA Sustainable Quality Program to use it to combat water pollution at Ethiopian wet mills.

With help from AAA business advisors, eight wet mills planted wetlands with vetiver grass. The grass soaks up most of the wastewater, with the remainder evaporating harmlessly in a pond located away from the river’s edge. The rotting coffee pulp is separated out from the water, composted, and distributed to farmers to use on their crops. This solution has prevented 56,000 cubic meters of contaminated waste water from being discharged into rivers each year.

To ensure that wet mills are meeting environmental and social sustainability standards, the Program carries out regular audits.

SUCCESS STORY

Thithi Wet Mill

Part of the Thikagiki Cooperative in central Kenya’s Murang’a County, the Thithi wet mill serves as a vital market link for its 648 active farmer members. The wet mill’s five staff members credit the training they have received from the AAA Sustainable Quality Program for helping to improve the quality of the cooperative’s coffee and the sustainability of its operations. George Nduati, the manager and secretary of the cooperative, explained that, “The quality of our coffee has improved over the years, thus fetching fair prices in the market. We have been able to pay our farmers fairly compared to the surrounding [cooperatives]. As a result of this, some of their members are registering with our wet mills.”

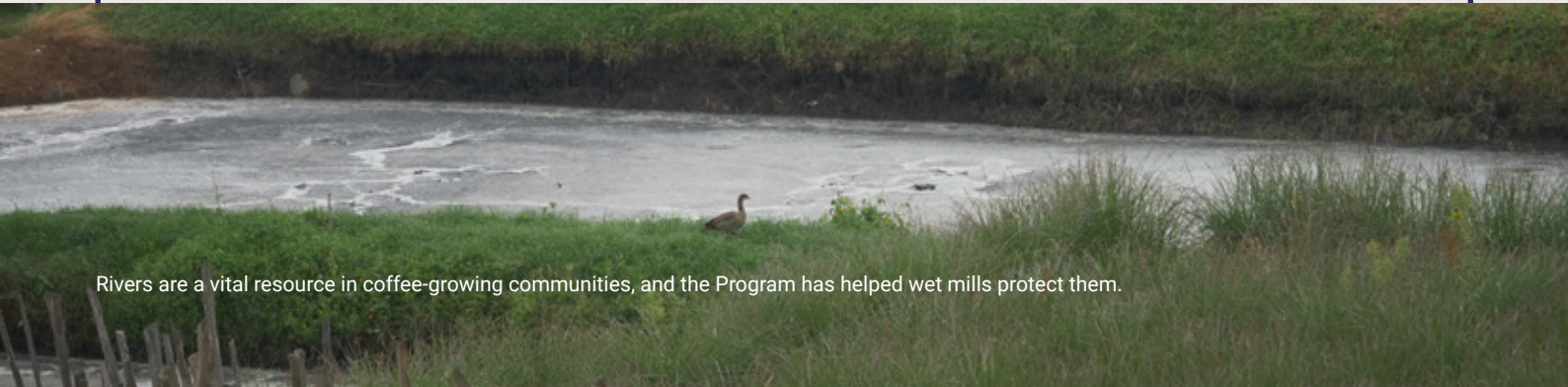


Thithi wet mill currently pays its casual workers above the statutory minimum wage. This small premium has incentivized casual laborers to remain at the facility throughout the harvest season, despite competition for labor from the tea industry. Nivah Njeri, one of Thithi wet mill’s casual workers, explained, “I am a single mother of two, but since I got employed in this wet mill, I can feed them and pay their school fees. The first-born just finished form four, and I want him to take a computer course. The second-born is in form two.”

Thikagiki Cooperative’s medium-term plans include the construction of additional metallic sun-drying beds to reduce the costs associated with repairing and replacing the existing wooden beds, the installation of an electronic cherry-weighing system with digitized member records, and the employment of two agronomists to support the work of its field committee.

Table 3: Practices at the Wet Mill

Quality	Social	Environment
Best practices for receiving, processing, drying and storing coffee and equipment maintenance	Compliance with labor regulations and best practices	Safe use of agrochemicals and accident avoidance; responsible water usage and conservation; and protection of ecosystems



Rivers are a vital resource in coffee-growing communities, and the Program has helped wet mills protect them.

Inclusive Value Chains

The AAA Sustainable Quality Program has worked to tackle inequality within the coffee sector by empowering women across the value chain and facilitating ambitious social change.

Women are active at every link of the coffee value chain, but they do not have equal access to resources, decision-making power, or incomes. The Program has targeted specific challenges that women face, including access to agronomy training, membership and leadership in cooperatives, and gender norms toward women's role in coffee production.

On the Farm

To ensure more equitable access to agricultural information, the recruitment and scheduling for training were designed with women farmers in mind, and the Program encouraged fairer household decision-making.

While globally, women are less likely than men to receive extension services, the Program has strived to ensure that women would have fair access to the AAA Academy. The Program has recruited in areas where women could be reached, scheduled sessions at times that were compatible with domestic responsibilities, and encouraged spouses to attend training together. As a result, 46% of the farmers trained in Kenya have been women, as have 34% of those in Ethiopia.

The Program has also incorporated lessons about the importance of gender equality at the household level, so that decisions are made more equitably within families.

At Cooperatives

The AAA Sustainable Quality Program has worked with the leadership and staff at cooperatives to make these vital farmer organizations more inclusive for women members and leaders.

At each wet mill, the AAA team has provided training that seeks to change the mindsets of businesses and drive greater adoption of gender-inclusive practices and policies. For example, business advisors have worked with wet mills to strengthen occupational health and safety materials to ensure that the mills are creating a secure working environment—particularly for women—that is free from harassment and discrimination.

The Program has also emphasized the importance of including women as members and leaders. It has worked with cooperative leadership to establish gender policies and change bylaws in order to reduce barriers to women's eligibility for leadership roles. **The share of women in leadership roles rose four-fold between the 2017 and 2019 audits in Ethiopia.**

Among AAA Agronomists

More than one-third of the agronomists in AAA Sustainable Quality Program are women, far exceeding the regional norm.

The AAA Sustainable Quality Program applied a gender lens to its own hiring, recognizing that ensuring that women were represented at all levels of Program staff would help the recruitment of women farmers into the Program and make the training more responsive to the needs of women farmers and workers. To date, women have filled one-fifth of the management roles in the Program and comprised 32% of the agronomists in Ethiopia and 39% of those in Kenya. This far exceeds the norm for the region: a World Bank study found that just 9% of local agricultural extension agents in Ethiopia were women.

SUCCESS STORY

Farmer Jateny Dekebo Lalu

Jateny Dekebo Lalu's coffee trees are growing back strong, and so is she.

A 50-year-old farmer from West Guji, Ethiopia, Jateny is widowed and uses her two-hectare coffee farm to support her two youngest children. Back when she farmed the plot with her husband, decision-making was not equitable. Sometimes, he would rent their land out without consulting her. Harvesting just 1,200 kg of coffee cherry each year, the couple struggled on the farm; Jateny recalled that they lived "hand-to-mouth, year after year."

Once Jateny was running the farm on her own, local officials encouraged her to participate in the AAA Sustainable Quality Program. Joining the 2017 AAA cohort, she learned business and farm management skills and stumped 250 trees. In 2020/2021, she harvested 2,550 kg of coffee cherry. She has had other farmers and government officials visit her farm to see first-hand a woman thriving in coffee production. Jateny sold her coffee harvest for \$1,150, and as a result, she is able to afford school fees and medical care for her children. She also built a house on the main road.

Just as striking as the economic benefits have been the emotional ones: "It's possible to change the position of women even though it takes time, and the dominant culture is difficult to overcome. I know that poverty affects more women, so I advised others to break through it and many have improved their lives, some even more than me!" she said.



Within Communities

The AAA Sustainable Quality Program has helped build the capacity of governments, extension offices, and local coffee professionals to create enduring change.

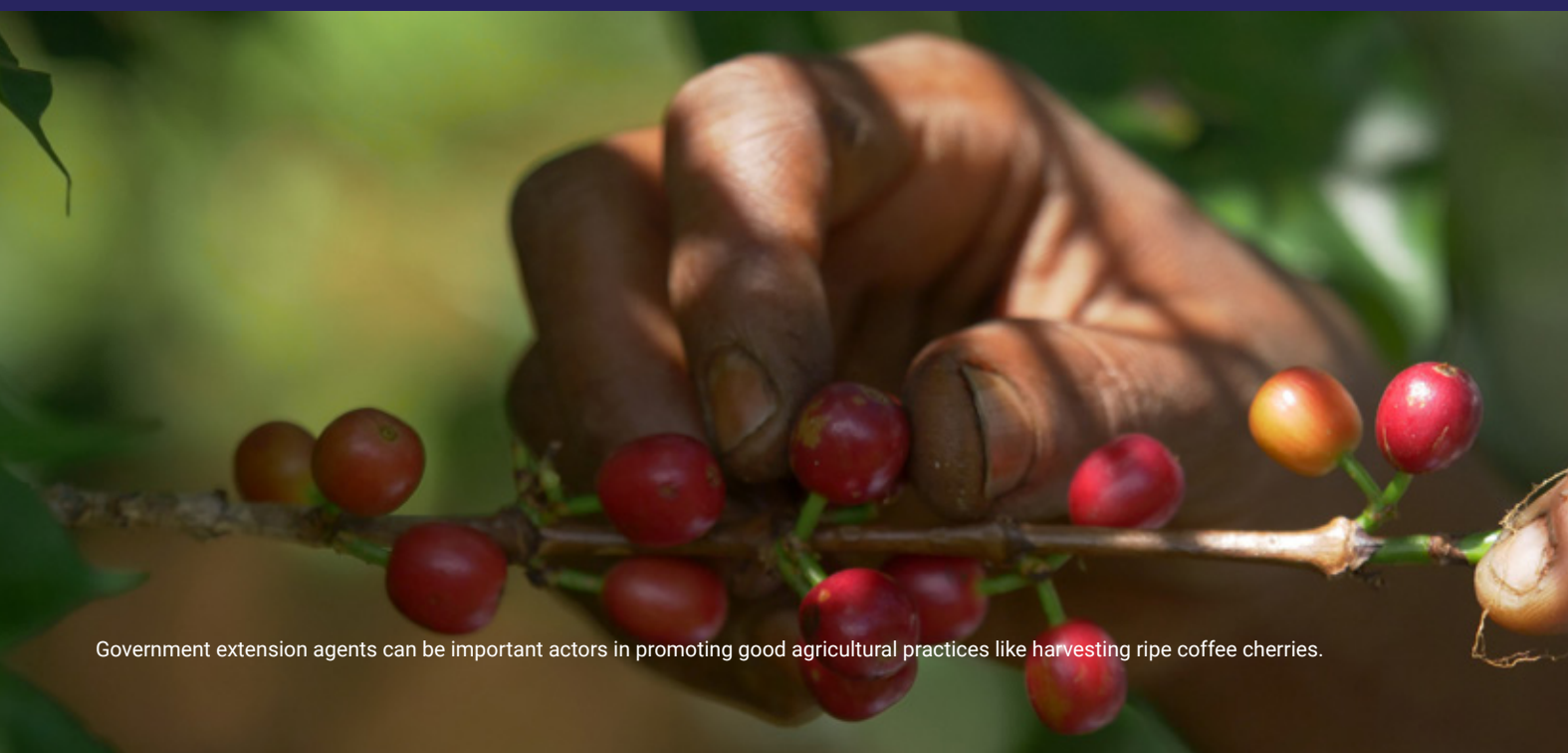
Because the AAA Sustainable Quality Program has sought to create lasting impact that continues after the Program ends, it has placed an emphasis on building a local support system, embedded in the coffee value chain, to continue delivering change.

The AAA Sustainable Quality Program has **delivered training to 70 government extension workers** so that they can provide consistent and effective support to farmers long into the future and has helped to build an evidence base for government agencies to set policies that benefit farmers. By carrying out soil studies in the areas of production, which provides localized data on soil health and nutritional needs, the Program has also provided data that government institutions can use in planning and making recommendations for input use.

The Program's agronomists and business advisors have also formed a cohort of coffee professionals, going on to serve in a variety of roles throughout the sector. Agronomists are often drawn from communities with few economic opportunities, but many now provide a broad range of important services, operating from both the public and private sector. For example, **81% of AAA agronomists hired in Ethiopia in 2015 have gone on to pursue further education** and 95% are currently employed.

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Government extension agents can be important actors in promoting good agricultural practices like harvesting ripe coffee cherries.

SUCCESS STORY

Trainer Netsanet Pauls

When Netsanet Pauls first started training farmers as a AAA agronomist, she was nervous. She was just 18 years old, and young women in her community in Sidama, Ethiopia did not often provide instruction to older farmers. But she found a reserve of strength within herself: "My supervisor was very patient with me, and with time I was more confident," she recalled.

The job with the AAA Sustainable Quality Program changed the trajectory of Netsanet's career. She had studied agriculture and animal care in high school, but she could not afford to continue her education. Instead, she helped her family on its coffee farm and hoped that she would be able to save up enough money to cover school fees.

When she was recruited by the AAA Sustainable Quality Program, she saw it as an opportunity to do steady, rewarding work in the agriculture sector. During the week, Netsanet built her skills on coffee agronomy and provided training to farmers. During the weekends, she continued her education on animal health, using her salary from the Program to pay the school fees.

By the time her contract with the AAA Sustainable Quality Program had ended, Netsanet had earned her diploma and was ready to take on new challenges. She was hired by the local government's agriculture office to provide animal-health extension services to local farmers, and she also pitched in to provide training on the coffee agronomy skills, leveraging what she'd learned as a AAA agronomist. "According to me, I have two diplomas: one for coffee and one for animal health," she joked.

As she trains local farmers and pursues a bachelor's degree at a local university, Netsanet continues to rely on the mindset she learned through the AAA Sustainable Quality Program. "TechnoServe made me strong, efficient, and confident, and I never give up, whatever challenges I will face in my future career."





Section Three

Key Lessons Learned

The project's research found that coffee production can be an important part of delivering living incomes in rural communities.

Over the duration of the Program, TechnoServe and Nespresso worked with Laterite, a third-party research firm, to capture data about impacts on farmers and wet mills. Analysis of this data has produced important insights regarding living income, farmer-level and wet mill-level investment outcomes, capacity building, and gender.

Farm Size and Living Incomes

Farmers have the potential to earn a living income, even with very small coffee plots.

Some within and outside the coffee sector have expressed fear that coffee farms have become so small in parts of Ethiopia and Kenya that, even at high levels of productivity, it's not possible for smallholder farmers to earn a living income. However, the Program's analysis of cost-of-living, price, and yield data demonstrates that these farmers can still earn a living income through the adoption of good farming practices.



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Practices like rejuvenation, demonstrated here, can significantly improve coffee incomes.

Figure 6: Potential for Coffee Farmers to Earn a Living Income³

The median AAA farm can achieve a living income. Optimal productivity and FOB price transfer can unlock living income.



3

This chart is based on 2020 price levels. Please see text box on page 9 for details on how living income benchmarks are calculated.

Quantifying the Impact of Agronomy Training

Agronomy training can effectively drive behavior change and yield improvements.

The data demonstrates that investment in agronomy training is successful in changing farmer behavior.

In Ethiopia, 19% of AAA farms adopted stumping in 2019 versus a baseline of 1% in 2017.⁴

These behavior changes also result in significant changes in farm yields. Most coffee trees in Ethiopia have never been stumped, and as such, are producing coffee on unproductive main stems that may be over 30 years old. Studies indicate that an average yield on these old trees is 1 kg of cherries per tree compared to sustained yields of 3 kg of cherries per tree for stumped trees.

Figure 7: Best-Practice Adoption

Percentage of farmers using half or more of best practices

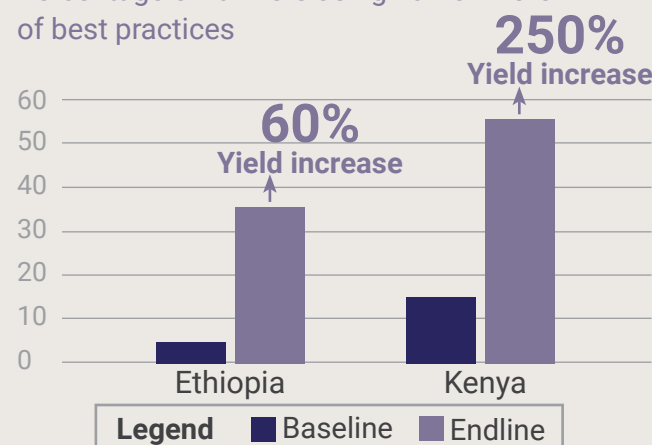
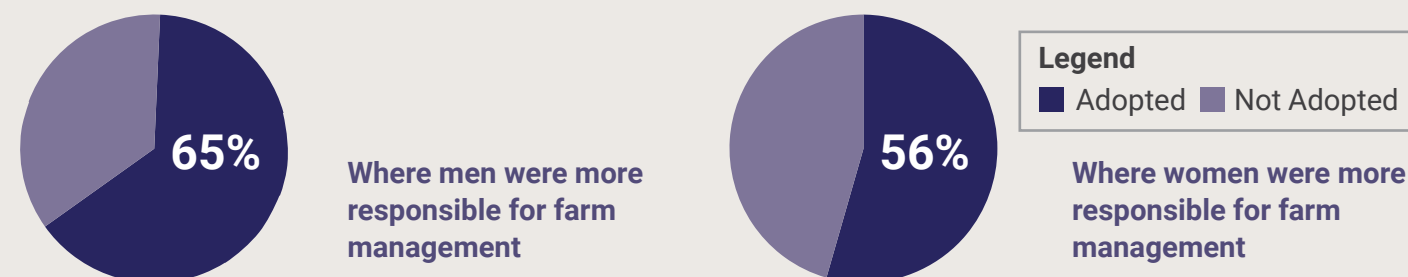


Figure 8: Best-Practice Adoption in Households with Men and Women More Responsible for Farm Management

Percentage of households adopting half or more of best practices in the 2018 Kenyan cohort



Improving Quality at Wet Mills

Changing a few practices at wet mills helped to significantly improve coffee quality. It was noted that most quality problem start at the farm, with poor agronomic practices producing low quality, pest-damaged cherry, and farmer training helps to address these challenges. At the wet mill, the cherry is at times received without proper sorting, labor shortages contribute to uneven drying and poor storage, and inadequate machine maintenance is a common challenge because management boards do not allocate adequate funds for preventative maintenance. As a result, the Program recommends working with the cooperative's entire management board to demonstrate how following best practices—even those that require some investment—result in higher earnings due to improved quality.

Acting on Sustainability

The Program's business advisors found that cooperatives that struggle to adopt sustainability best practices often do so due to a lack of capital, so improving the financial management of cooperatives is an important step in boosting sustainability. The Program team also found that knowledge-sharing between cooperative leaders led to increased adoption of sustainability practices. This was particularly successful for closing the gap on gender-inclusion, where cooperatives that had been slow in adopting best practice significantly improved their gender performance after leadership met with their counterparts from cooperatives that performed well in gender-inclusion.

Supporting Best-Practice Adoption by Women Farmers

Inclusive training is important, but structural factors likely also impact best-practice adoption by women farmers.

The AAA Sustainable Quality Program has had significant success including women farmers in training and promoting best-practice adoption, but a third-party analysis of the 2018 cohort in Kenya found that there is still a moderate gap in best-practice adoption rates. This is likely explained by structural factors affecting women farmers in East Africa.

The Program is adopting modules on more equitable household decision-making and women's leadership. The goal is to increase women's confidence and ability to influence household and coffee-farm decisions, as women's limited ability to influence these decisions may make it harder for them to adopt agronomy best practices.



The Program has worked to ensure that both men and women farmers, such as these pictured in Ethiopia, have access to training.



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Towards Resilient Communities and a Living Income for Smallholders