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A Sustainable Business-to-Business Approach to Importing Green Coffee from Women, Smallholder Producers in Rwanda



A Co-Authored Case Study

Roberta Lauretti-Bernhard and Ruth Ann Church

Sponsored by Food Enterprise Solutions (FES)

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Glossary/Abbreviations

AGLC, Africa Great Lakes Coffee support program: a \$1.8 million Feed the Future, USAID funded project from 2015 – 2018. Led by Michigan State University, the project was a consortium of Rwandan, Burundian and US-based organizations.

B2B, Business to business: refers to transactions of businesses that sell to other businesses as opposed to B2C, where businesses sell to consumers.

Certified Coffee: examples include organic, Fair Trade and Rainforest Alliance certifications. See Box 2, “What is Fair Trade Certification?”

Cherry price: refers to the price a farmer is paid for their raw product, which is coffee cherry. In many cases, “cherry price” and “farmgate price” are interchangeable in Rwanda.

Farmgate price: refers to the price a farmer is paid for their raw product. Rwanda’s government body announces a minimum farmgate price at the start of each coffee season. In many cases, “farmgate price” and “cherry price” are interchangeable in Rwanda.

FOB, Freight on Board: standard shipping/contract terminology used to specify the point where the cargo is placed on board a ship at a port of departure. Prices and insurance risk are often related to this point. An “FOB price” is, for example, different than the “FOT, freight on truck” price, and is also different than the farmgate price, (see above).

FES, Food Enterprise Solutions: Co-author, Roberta Lauretti-Bernhard co-founded this organization. See mission and background in the preface.

IWCA, International Women’s Coffee Alliance. www.womenincoffee.org A non-profit organization, the IWCA is a vibrant network of independent, national level organizations, called IWCA Chapters, in 32 countries, united by the shared mission to empower women across the global coffee industry.

PPP, purchasing power parity rate: a currency exchange rate created by the World Bank to compare values across countries and currencies. See footnote 1.

Rwf, Rwanda franc: local currency in Rwanda. See appendix for Rwf/\$U.S. foreign exchange rate history

SCA, Specialty Coffee Association: a trade association for the specialty coffee community. The specialty coffee trade differentiates themselves from the “commodity” or “commercial grade” coffee trade, which tends to be represented by the National Coffee Association (NCA).

SDGs: United Nations’ Sustainability Development Goals. <https://sdgs.un.org/goals>

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PREFACE

This case study is sponsored by **Food Enterprise Solutions (FES)**. FES is a US-based agribusiness solutions provider, serving growing food companies in emerging economies in Africa, Asia, and Latin America. **Artisan Coffee Imports, LLC**, (Artisan) is a small, woman-owned, US-based company, that imports green coffee, primarily from women coffee producers. The case study *aims to share aspects of the work by Artisan Coffee Imports that exemplify the values and sustainable approaches supported by FES.*

Background on FES

Food Enterprise Solutions (<https://www.foodsolutions.global/>) is on a mission to energize the global food system to better balance global needs and profit. FES leverages the powers of business, entrepreneurship, and innovation as key drivers in the global fight against hunger and malnutrition. Working in partnership with businesses and other organizations, FES strives to provide safe, nutritious, and affordable foods through supply chains that are commercially viable and environmentally sustainable. FES offers expertise in partnership development, market analysis, project design and management, training, and specialized technical assistance to strengthen the capacities of, and linkages among, key actors within food systems.



Lauretti-Bernhard with members of the Nepal Food Safety Regulatory Board. Photo Credit: Phaindra Pandey.

A private sector company, FES was founded by three development specialists with a combined 90 years of experience in international agriculture and economic development. Working with small-scale producers and agribusinesses—in any supply/value chain—gives a bird’s eye view of the importance of food and nutrition security for farm families in emerging economies. FES’ work in food safety also brings to light the importance of safe and nutritious foods for farming communities, specifically the need to provide safe nutrients and reduce food loss and food waste.

Background on Artisan Coffee Imports, LLC

Artisan Coffee Imports, LLC (www.ArtisanCoffeeImports.com), was founded in 2009 by Ruth Ann Church. Passionate about economic development and valuing women as contributors to economic progress, she envisioned a business that would pay premiums to female producers and demonstrate the economic growth communities experience when investment is directed towards women in emerging economies. In 2016 the business began importing in earnest, moving containers of coffee to the US from Rwanda. The work to create a supply chain that improves the economic situation of coffee farming families was underway.



Leaders of the Ejo Heza women's group of Kopakama join with Church to celebrate another premium paid by Artisan Coffee Imports.

Artisan Coffee Imports’ Mission: We trade coffee in sustainable ways that improve the lives of farmers. We offer artisan roasters taste with consistency and transparent sourcing that supports the roaster's brand. Through consulting we offer supply chain management techniques to producer organizations at origin. Together we improve quality and grow the share of export price for the farmer.

SECTION I. Case Study Introduction

This case study provides examples of some of the experiences and challenges of implementing a business-to-business (B2B) approach that intentionally incorporates sustainable economic development principles.

In this study, we describe how FES supports women coffee producers through its programs and how Artisan, as a private sector actor in the coffee value chain, has managed the challenges of creating a sustainable supply relationship with women coffee co-operatives in Rwanda. Both companies address some of the broader challenges and opportunities associated with trading relationships and women's economic empowerment. Some of the results of Artisan's efforts are described, as well as recommendations for much-needed research to validate the value of incorporating sustainable economic development principles in B2B relationships.

Artisan buys from about five Rwandan cooperatives, typically only buying from their women's groups. In this case study, we focus on the B2B relationship between Artisan and Ejo Heza, the women's group with parent cooperative, Kopakama. We chose to write about the relationship with Ejo Heza because this is Artisan's longest relationship, having started in 2016, and Kopakama is one of the oldest coffee cooperatives in Rwanda. The female farmers, prior to Artisan's arrival, named themselves "Ejo Heza", which means "bright tomorrow" in the local Kinyarwanda language. Thus, the B2B relationship between Artisan and Ejo Heza has a unique focus on gender.

Organizations such as FES are strong supporters of change to benefit women in coffee through their focus on private-sector innovations that address gender-related challenges, and their support for organizations like the International Women's Coffee Alliance. They encourage the work by Artisan and others that focuses on the sustainability of supply chains over the long term. With this case study, FES seeks to highlight for readers how investments in women are a plausible means toward this end. FES would like to highlight the relevancy of investments in women to a country's economic development and the importance of farm women and their families. This case study describes innovative programs Artisan has created and implemented that have supported a shift in mindset about cherry prices, fostered financial literacy and economic autonomy through a micro savings and loan program, and increased the number of women in leadership roles at Ejo Heza.

Reason for Gender Focus of the Case Study

The focus on women farmers in this study (and the work of FES and Artisan generally) is important because food insecurity in Rwanda is known to have a gendered component, with female-headed households more likely to be food insecure: 23% versus 17% for male-headed households. In a 2019 study by [Chronic Poverty Advisory Network](#) (Bird 2019), the area with the highest level of food insecurity in the country, 49%, was in the Rutsiro district, where Kopakama Co-operative is located. The World Bank estimates that 21% of Rwanda's population lives below the international poverty line of US\$1.90/day, 2011 PPP¹. This level of poverty is higher than that of Kenya (12%), Uganda (13%), and Tanzania (16%) (World Bank 2016).

Rationale for a Cooperative to Create a Women's Group

Kopakama Co-operative (<https://www.facebook.com/KopakamaCoffee/>) was established in 2005 as one of Rwanda's first coffee farmer co-operatives. Foreign investments, including the PEARL² program, supported the establishment of these co-operatives as tools of both economic and social recovery. In these co-operatives, coffee farmers are able to set aside cultural stereotypes that had fostered genocide atrocities and instead focus on growing quality coffee that could lift them out of poverty. Nowhere was this more evident than with the women's group established by Kopakama's board in 2011. Kopakama set aside a quarter-hectare plot, for 500 trees, for the women members of their co-operative to farm as a community. This would have many benefits, including the potential for easing cultural conflict among ethnic groups. Women from Hutu and Tutsi groups began working side by side toward a common goal. The women named their group "Ejo Heza," which in the local language of Kinyarwanda means, "better tomorrow." For more detail on the story of Kopakama's formation of the Ejo Heza women's group and its benefits, see "Women, Coffee, and Land," a report by the UK-based organization Twin, which worked with Kopakama for more than five years (Twin 2016, p. 16).

¹ The 2011 PPP, or "2011 purchasing power parity rate" refers to a currency exchange rate created by the World Bank to compare values across countries and currencies. This means that a given sum of money, when converted into US dollars at the PPP exchange rate (PPP dollars), will buy the same basket of goods in all countries.

² PEARL was a USAID funded, five-year project to support the Rwandan government's interest in upgrading their coffee sector. It ran from 2003 to 2008. Rwandan farmers had grown coffee since long before the genocide in 1994, but because of crude processing techniques, it was considered a low grade commodity. PEARL's objective was to leverage Rwanda's micro-climates and soil, which are ideal for coffee, by investing in human and physical capital to succeed in the specialty coffee sector. The project deliverables included establishing coffee co-operatives, training cuppers, and building the country's first coffee washing stations. In 2007, *Time* magazine published an article sharing the project's successes titled, "the Coffee Widows."

Case Study Overview

The following case study will address several innovations that Artisan has implemented in its B2B relationship with Ejo Heza: establishing price premiums, building business skills and financial literacy, improving gender equity, affecting social outcomes, and increasing productivity goals. The case study is followed by sections on the challenges of measuring the outcomes and relating the goals of Artisan’s projects to five of the United Nations’ Sustainability Development Goals (SDGs). The conclusion presents recommendations for policy and research based on the issues discussed in the case study.

SECTION II. Improving Price Points and Premiums for Coffee Purchased from Women Producers: Why Higher Prices/Premiums for Female Producers Matter

The return on investment in women in agriculture is often documented in development literature. (See, for example, Malapit H. et al. 2014; Buvinic, M. and M. O’Donnell, 2017; United Nations, 2015; UN Women, 2014; Rainforest Alliance, 2020). Notable newer literature includes International Coffee Organization (ICO)’s “Gender Transformative Strategies” report from the Coffee Public-Private Task Force (ICO 2021), and SCAA’s 2015 report, “A Blueprint for Gender Equality in the Coffeelands.” In a recent ISEAL presentation on gender transformative approaches, the speaker, an Oxfam Ghana program manager, lamented that programs “often fail to strengthen women’s position in cash crop farming,” instead, they focus on alternative income streams such as basket-making or tailoring (ISEAL 2022). Artisan’s program focuses directly on investments in women for their coffee production as a cash crop.

The Cost of Production Gap

Some critics may question the validity of paying women higher prices for coffee just because they are women. In the Rwandan context where Artisan works, women and men are paid the same price for their coffee. Certified coffee, (e.g., Fair Trade, Rainforest Alliance), and high-quality coffee is ‘gender-blind,’ in that buyers will pay the same price for exceptional cup quality regardless of whether the producer is male or female. However, women have higher costs of production. For example, research in Rwanda has shown female headed-households have 20% higher costs than male-headed households, which means 20% lower income from coffee than their male counterparts (Feed the Future, 2017). Other research in East Africa has identified similar differences between what male and female farmers earn from their farming (SCA 2018; TWIN 2016). The study by TWIN attributes the discrepancy to differences in the land ownership and decision-making power of

women and girls. The Africa Great Lakes Coffee (AGLC) support program used a household survey (n=1024) disaggregating female-headed households and found evidence that in Rwanda, female-headed households are older, more illiterate, and have less adult help in the household than their male counterparts. Female-headed households that grow coffee are more likely to experience food insecurity than coffee-growing male-headed households. The women own fewer coffee trees and own less land overall than their male counterparts. Their trees are older and less productive, and a larger share of the household income is from coffee: 49% for female-headed vs. 43% for male-headed households (Feed the Future, 2017).

Many of these disadvantages lead to high production costs and have persisted for generations for rural women. In addition to social conditions, such as being older or malnourished, women-headed farming households need to hire help for mulching and applying pesticides more often than male-headed households. These higher costs of production for women, stemming from myriad cultural conditions and economic practices, are what led to Artisan initiating a per-kilogram premium for women coffee producers. It can be argued that paying a female farmer the same price as a male farmer for coffee is actually NOT paying that female farmer the same price, because her cost of production is higher than the man's. Clearly, women producers can benefit from understanding their costs better and correctly valuing their labor and inputs. This is an area of focus for many IWCA chapters in Latin America. They are supported in this focus area by Lauretti-Bernhard's work to provide business literacy training.

Cash Transfers to Women and Achieving Development Goals

Even if there was no cost of production gap, Artisan believes there is justification to pay the women's premium because of the evidence of the power of unconditional cash transfers (UCTs) given to women to achieve development goals. While cash transfers have been shown in some contexts to have disadvantages if the goal is food security (UN Women 2014, p 75), other more recent research in Uganda shows that the impact of women's empowerment on ownership and decision-making in cash crops is a means to improve child nutrition (Feed the Future, 2020). Especially when the goals are multi-dimensional and not limited to food security, unconditional cash transfers have proven effective. "Small, frequent, and reliable cash payments to poor households have been shown to cause contemporaneous improvements in multiple domains, such as per capita consumption, savings, nutrition, mental health, teen pregnancies, child marriages, and intimate partner violence" (Development Impact Blog 2021). This research is evidence that paying women

premiums for coffee (a cash crop) gives them economic power and personal agency and can precipitate improvements and development in many areas.

A systematic review of the literature substantiates that UCTs for women can be more effective than UCTs given to men (Yoong 2012). The benefits of UCTs given to women were carefully studied and reviewed in a 2017 Gender Innovation Lab Policy Brief. The study among the poorest of the poor rural households in Nigeria found positive impacts on consumption, investment, well-being, and production outcomes (Bastian 2017). Empowering women economically in agricultural supply chains is an essential part of advancing human rights and sustainable economic development. It is also an often-overlooked climate solution and an effective way to increase farm productivity (Rainforest 2020). The research on this topic was clear to decision-makers at the ICO. In 2020 the ICO's Coffee Public-Private Task Force established an ambitious Roadmap vision to achieve by 2030. As part of the Roadmap, "the Task Force committed to embed gender transformative approaches throughout its processes, plans and activities. In April 2021, the Oxfam Business Advisory Service (OBAS) was appointed as the Gender Advisory Lead to the ICO to support its work to embed gender transformative strategies across the coffee value chain" (ICO 2021). A gender-based transformative approach that includes contracted cash premiums to women producers is one way for a private trading company to address the gendered dimensions of poverty, vulnerability, and inequality that exist in coffee-producing communities.

Starting with the first contract in 2016 for just 100 bags (60kg each, a total of six metric tons), Artisan has always paid a women's premium of thirty cents per kilogram of green coffee, (or 13.6 cents per pound). The premium only goes to female farmers, which Artisan justifies given the cost of production gap and benefits of cash transfers to women discussed above. Church has seen anecdotal evidence over the years that many in the co-operative acknowledge that women face more obstacles in society



Farmer bringing her cherry to the collection site for weighing.

than their male counterparts and male farmers will easily verbalize recognition of the comparative “extra work” they see women putting into their coffee plantations. The ‘women’s’ premium is accepted on this basis.

Box 1: Coffee Processing in Rwanda: Explanations and Definitions

Coffee is an agricultural product that grows on a bush-like, small tree and only grows between the latitudes of Capricorn and Cancer. **Coffee cherries** start as small green nubs on a branch, and develop through light green, yellow, pink and finally bright red-maroon colors as the juices and sugars in the cherry grow around the hard pit in the center. Ideally, ripe coffee cherry is picked the day it turns bright red. A common processing method for specialty grade coffee, (the most common in Rwanda) is called **fully washed**. This method requires the farmers to transport their freshly picked red, ripe cherry to a central **washing station**, so that it can be processed within eight hours of picking the fruit. The washing stations are either cooperatively or privately owned and have staff trained to run a de-pulping machine, which transforms the cherry into a coffee form called **parchment**. Parchment coffee has a thin, light brown hull around the inner, hard bean. The soft, red coffee fruit is discarded, (hopefully with sustainable practices). Coffee typically remains in its parchment form through sun-drying on raised beds and storage until export. The parchment layer provides protection from aging, extending the coffee’s shelf life, but parchment coffee cannot be roasted. So just before export, parchment coffee is de-hulled at a dry mill, producing **exportable green coffee** which is a “roaster ready” form. **Green coffee** is typically packed in 60 kg (132.2lb) jute bags with plastic liners (grain-pro) then loaded on containers for export to coffee consuming countries.

Upgrading Quality and Productivity

Moreover, Church sees the premium as an incentive for quality upgrading and productivity improvement. She works with the co-operative to leverage this aspect. The Ejo Heza group was a ready-made organizational entity with which to demonstrate that improved incentives can initiate a virtuous cycle. The farmer implements more best practices, resulting in higher per tree productivity and better cherry (higher cup scores), which in turn allows Artisan to pay higher prices to the farmers and sell the coffee at higher prices.

A key focus in Artisan’s early years was to eliminate a specific defect called potato taste defect or PTD (Matsuura et al 2014). The research project that had brought Church to Rwanda in the first place had shown that washing stations, in general, were lax with quality control of incoming cherry, allowing PTD to appear in many tons of coffee. Every farmer’s coffee was mixed with all other coffee. All potentially excellent coffee was therefore downgraded in quality and the farmer who grew the great coffee was underpaid. In 2014, global exporters of Rwandan coffee estimated that PTD

was prevalent in buyers' minds as a "Rwandan problem" to such a degree that it was discounted by \$0.19 per pound versus other similar coffees, e.g. Honduran high grown. The total estimated annual differential "loss" for semi-washed coffee from Rwanda, Burundi and Democratic Republic of Congo (three countries afflicted by PTD) came to \$16 million (Michigan State University 2014).

One might ask then, why Artisan paid based on gender, instead of using a quality standard that might address the PTD problem. The reason is that Church believed that as a small importer, Artisan could achieve gains on many fronts if her focus was to help the women *and* help improve quality. Regardless of whether they improved quality, the women would benefit and there seemed to be great potential to start a ripple effect (spillover benefits) of women achieving higher quality coffee and better prices, and others being quick to follow.

The women's premium paid by Artisan comes on top of what is considered a fair price for the coffee itself, and other bonuses such as payments related to coffee certifications (e.g., Rainforest Alliance and organic)³ or cooperative membership.

Box 2: What is Fair Trade Certification?

Fairtrade is the only global sustainability label that guarantees a minimum price for coffee. Fairtrade-certified coffee cooperatives currently earn the Fairtrade minimum price of US\$1.40 per pound –or US\$1.70 per pound organic. On top of that, they earn US\$0.20 per pound as a Fairtrade Premium, of which at least 25 percent is invested in productivity and quality initiatives. Co-ops invest the rest in projects of their choice, ranging from processing facilities to community healthcare. Fairtrade coffee producers earned more than US\$94 million in premiums in 2017.

Source: FairtradeAmerica.org <https://bit.ly/3qYXEVb> and <https://bit.ly/3C9epmJ>

Artisan writes the premium into the purchase contract, noting that the co-operative must provide documentation that the premium has been transferred to a bank account controlled by the women. In most cases, Artisan also receives documents showing fair distribution to all women who grew the coffee. Church also requires that the president of the women's group agree to the terms and sign the contract. It seems likely that when Church first did this in July 2016, it was the first time that Therese Uwimana, then president of Ejo Heza, had signed a coffee contract, even though she had been president of the women's group for several years. Lack of business management skills and financial literacy is common among small women-owned businesses in emerging economies,

³ To learn more about certifications like Fair Trade, Rainforest, and Organic, see this 2014 paper on Voluntary Sustainability Standards. <https://thecosa.org/publication/corporate-social-responsibility-and-the-role-of-voluntary-sustainability-standards-2/>

partially due to the lack of opportunities for these skills to be utilized. Access to education in areas of business management and financial literacy is an area that FES addresses in its support of the IWCA Microfinance Project. Financial literacy is discussed in more detail in a later section.

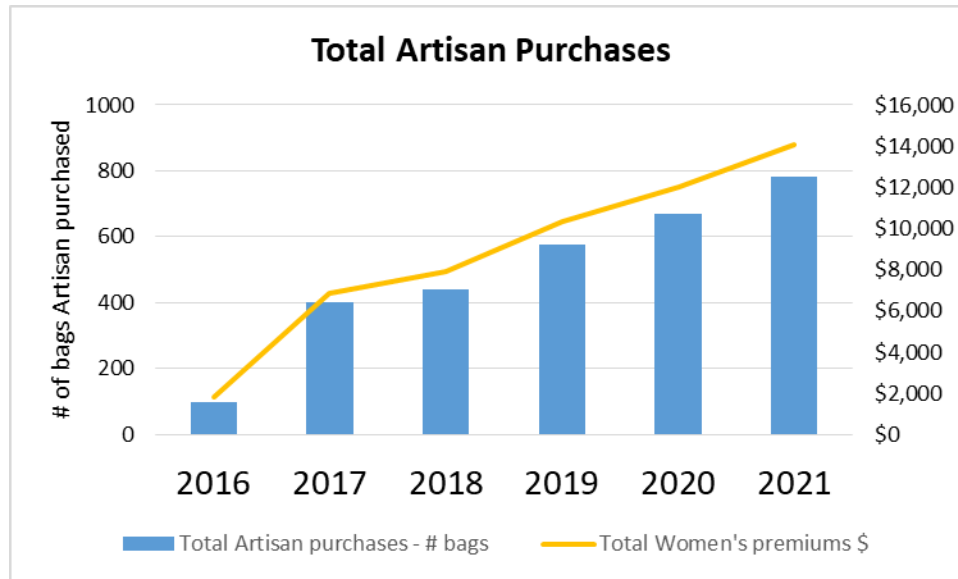
Traceability

Artisan's contract to buy coffee grown by women was also a first for Kopakama. No other importer had yet required the co-op leaders to keep the women's coffee separate all the way through export. Fortunately, the co-operative already had a system for keeping women's coffee separated from other coffees during processing. The women harvested together every Tuesday and Thursday during peak season. This meant that the co-operative could restrict cherry collection on Tuesdays and Thursdays to only women and process that coffee separately. In this way, the program was increasing the co-operative's capacity to offer traceability to the farm level. Traceability is a key to higher prices in coffee (New Food 2022; Caravela n.d.). In the coffee industry, traceability means the ability of the end buyer, the roaster in a coffee-consuming country like the US, to know which farmer or group of farmers grew the coffee. It is the word used in coffee to convey the same quality cues that restaurants evoke with the term "farm-to-fork." In reality, the operations of keeping coffee traceable do not guarantee there will be higher quality, but high quality is nearly impossible without lot separation and lot separation is part of the operation of creating traceability. In other words, traceability is not sufficient to achieve quality, but in many cases, especially in Rwanda, traceability is a necessary predecessor to raising quality. Artisan emphasizes in its advertising that it offers *both* traceability and high quality.

Artisan's Volumes and Average Freight on Board (FOB) Price

Artisan has been fairly successful in securing roaster customers in the United States who were interested in traceable, sustainable coffee grown by women. See Figure 1 showing Artisan's growth from 2016 to 2021, and the directly related growth in dollars of premiums paid to women.

Figure 1: Artisan’s Volume History



Source: Authors' records, all contracts booked in USD.

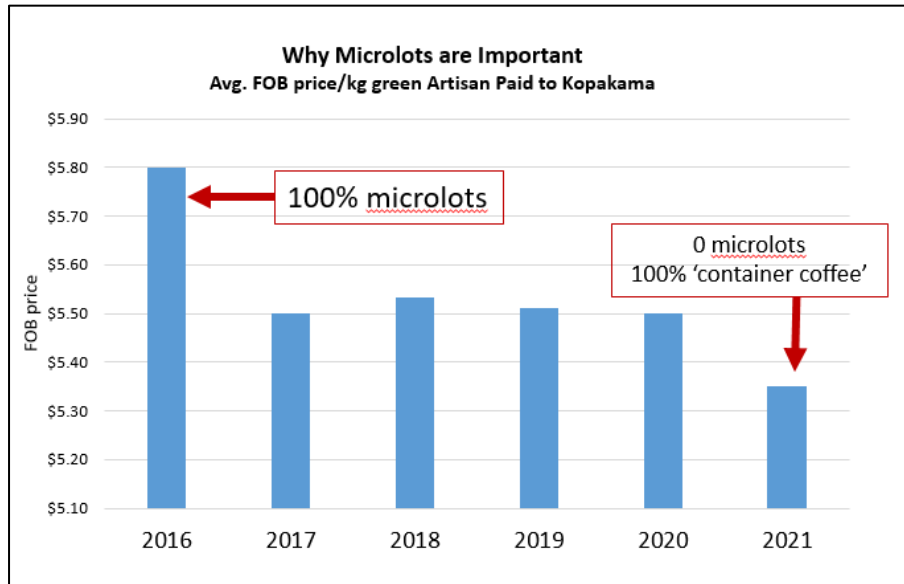
Artisan met with a buyer from Peet’s Coffee & Tea, an important coffee company based in Emeryville CA,⁴ at the Coffee Roasters Guild retreat in 2015, where Church was a speaker. Peets was scouting for new sources at the retreat, and they contacted Artisan to buy some of their coffee in early 2017. When Peets agreed to buy one container of Ejo Heza’s coffee in 2017, this was a huge step forward for Artisan’s ability to survive as an importer. With Peet’s buying a full container, it would be easier to add on orders from small roasters who pay the highest prices.⁵ Now there were real prospects for a profitable coffee import operation, covering the substantial fixed costs of marketing, shipping, and travel.

Artisan’s mix of ‘container coffee’ and microlot contracts has benefits for the co-operative as well. It allows the co-operative to receive, on average, a higher price for its coffee than it would otherwise, while still selling the large volume of coffee its members produce (See Figure 2). In general, selling microlots keeps Kopakama’s price high, but the co-operative cannot survive without sales of ‘container coffee’ since volume of sales is such a critical factor in the coffee business.

⁴ Peet’s Coffee & Tea is a major brand in coffee based in Emeryville, CA.

⁵ Coffee prices are heavily impacted by volume, all else constant. A container of coffee is 320 bags (60 kg/132 lbs each). When we are talking about “container coffee” we are implying that the coffee is priced significantly lower per pound than microlots. Microlots range in size from 1 bag to anything less than a full container, but most are probably 10–50 bags.

Figure 2: Average FOB price Artisan Paid to Kopakama



Source: Authors' records, all contracts booked in USD.

Price comparison to Coffee Transaction Guide: Data on Rwanda

According to the Specialty Coffee Transaction Guide (SCTG)⁶, Artisan pays near the top of the scale (3rd quartile) when buying ‘container coffee’ (large-volume contracts) and near the bottom of the scale (1st quartile) when it comes to prices paid for microlots (small-volume contracts). See Table 1 below and the far-right column “Artisan’s FOB price quartile”. Artisan’s explanation for this phenomenon is that paying the highest microlot prices only makes sense if a large portion of that price is going to the farmer. Research has shown that each link of the chain is threatened if the farmer is not receiving a price that motivates investment in coffee cultivation with best practices (Clay et al 2018). Church finds it important to avoid further investments in the post-harvest actors in the value chain, namely the processors and exporters, at this time. Furthermore, ranking Artisan’s purchase by each individual microlot contract may evaluate the pricing as low (1st quartile), while an evaluation of volume per cooperative might show Artisan’s pricing as generally in the 3rd or 4th quartile.

⁶ To read more about the SCTG, [click here](#) and see References.

Table 1: Artisan’s FOB prices.

Contract	fob_price	pounds	Size	Quality	Artisan's FOB price Quartile
			2019		
2019 Contracts			Size	Quality	Quartile
Artisan contract 1	\$2.404	39,286	S2	Q4	2nd Quartile
Artisan contract 2	\$2.540	23,149	S2	Q5	2nd Quartile
Artisan contract 3	\$3.000	1,455	S4	Q5	1st Quartile
Artisan contract 4	\$2.540	8,598	S3	Q5	1st Quartile
Artisan contract 5	\$2.495	1,323	S4	Q5	1st Quartile
Artisan contract 6	\$2.500	1,323	S4	Q5	1st Quartile
			2020		
2020 Contracts	fob_price	pounds	Size	Quality	Quartile
Artisan contract 1	\$2.404	42,329	S1	Q4	3rd Quartile
Artisan contract 2	\$3.000	8,730	S3	Q5	2nd Quartile
Artisan contract 3	\$2.495	1,323	S4	Q5	1st Quartile
Artisan contract 4	\$3.000	6,614	S3	Q5	2nd Quartile
Artisan contract 5	\$3.000	1,323	S4	Q5	1st Quartile
Artisan contract 6	\$3.000	12,566	S2	Q5	2nd Quartile
Artisan contract 7	\$2.631	3,307	S3	Q5	1st Quartile
Artisan contract 8	\$2.631	9,921	S3	Q5	1st Quartile
Artisan contract 9	\$2.495	3,307	S3	Q5	1st Quartile
Artisan contract 10	\$2.540	1,323	S4	Q5	1st Quartile

FOB prices on Artisan’s contracts are most often in the first (lowest) quartile of reported contracts for Rwanda, according to the Specialty Coffee Transaction Guide. [Key: “S” refers to size category. “Q” refers to the quality category. “S1” is the largest size category, and “S4” is the smallest. “Q1” is the lowest quality, “Q5” is the highest quality.] Source: 2021 Specialty Coffee Transaction Guide.

Cherry Price Issues in Rwanda: The Challenge of Getting Money to the Farmer

It’s important to recognize that in coffee there are many prices along the value chain. Artisan tracks the cherry prices paid to farms carefully. There is a well-known gap between the FOB price and the money that is actually paid to the farmer, the “cherry price” or “farm-gate price” (Harper 2020; Emory University 2020). According to estimates in 2017, in Rwanda, as little as 45% of the FOB price makes it back to the farmer (Church 2018). Coe (2006) found Rwanda to have the lowest producer share of world coffee prices, among 37 countries. A global average from other producing countries estimates farmers typically receive 60% to 80% of the FOB price (Kraft 2017). In Latin America, one importer estimates the farm-gate price ranges from 70% to 80% of the FOB price (Cuevas 2021). These figures indicate that Rwanda lags tremendously, and Rwandan farmers are underpaid compared to their counterparts in other countries. Artisan’s mission, therefore, has been to move more of the FOB price into the hands of farmers.

Challenges of Working with Rwandan Government Policies

In Rwanda, the cherry price that farmers receive has historically been closely correlated to the farm-gate price set by Rwanda’s coffee marketing board, the National Agricultural Development and Export Board, commonly known as NAEB. Research has documented that NAEB’s annual announcement of a farm-gate price, intended to be a floor (minimum) price, has a strong influence on the prices processors will pay in that season. Historically, the farm-gate price has been low, even lower than the cost of production in some years. Low farmgate prices have had a stifling effect on coffee cultivation (Clay et al 2018).

Table 2: NAEB Farmgate Price History – prices set by government body in local Rwanda franc currency. (See appendix for Rwf/\$US foreign exchange rate history)

Year	Government farmgate price, Rwf/kg cherry (for sinkers only starting 2019)	Gov’t req’d price for floaters, Rwf/kg cherry (starting 2020)
2015	170.00 Rwf	
2016	150.00 Rwf	
2017	269.00 Rwf	
2018	240.00 Rwf	
2019	190.00 Rwf	
2020	220.00 Rwf	100.00 Rwf
2021a*	248.00 Rwf	100.00 Rwf
2021b*	270.00 Rwf	100.00 Rwf
2022	410.00 Rwf	100.00 Rwf

*NAEB adjusted the farmgate the price part-way through the season.

Source: Annual announcement letters from NAEB.

Table 2 shows farm-gate price history from 2015 through 2022.⁷ Until 2021, it was rare for any processor to pay more than the prices listed in Table 2 for any quality of cherry, despite the evidence that 300 Rwanda franc per kilogram cherry was the minimum a farmer needs to be motivated to invest his/her time in coffee farming (Clay et al 2017). In other words, underpaying farmers was the norm.

Ideally, the coffee board would implement strategies that create and improve an enabling environment in which farmers who invest in coffee are rewarded by processing organizations paying

⁷ Interested in USD conversion? See appendix for Rwf – USD exchange rate history, 2015 – 2022.

higher prices for higher quality. Such a policy environment requires coffee officials from the capital city to hold regular and frequent meetings with farmers and representatives of coffee co-operatives. The World Bank and other multilateral organizations often advise governments seeking aid to include the “farmer voice” in policy development. (World Bank, Dev Report 2017; World Bank, EBA 2017). In this regard, the 2021 season appears to have been a watershed year in Rwanda. Cherry prices in most coffee-growing regions of the country reflected the short supply of cherry, not NAEB’s farm-gate price, and thus rose much higher than the floor price set by the government body. As of this writing in 2022, it appears that again, market forces will prove to be stronger than the government price indicator. Ideally, officials will leverage the buoyant price environment to support and entrench policies and activities which align farmer motivation with national production and global product differentiation.

Pricing Innovation: The 300 Club

To address the gap between farm-gate and FOB prices, Artisan developed a program called the “300 Club” which operated from 2019 through 2021. The program offered co-operatives significant price increases (+US\$1/kg or \$0.45/lb) if the co-operative board agreed to pay cherry prices of at least 300 Rwf to the farmers. The program stipulated that the 300 Rwf/kg cherry price must be paid in the first payment; it may not be the sum of a payment at delivery and a bonus paid six months later. In 2021, the program was implemented in different ways by two different co-operatives. In one, the co-operative was able to pay 310 Rwf in the first price to all the female farmers. In the other, the co-operative proposed the program to NAEB, which expressed concern. The co-operative, and Artisan, were forced to agree that the co-operative would only pay the NAEB farm-gate price in the first payment (270 Rwf), and the balance (30 Rwf) equaling 300 Rwf could be paid after July 1. Artisan expects to develop this program iteratively, adapting the minimum conditional price with currency inflation and current market conditions. Thus, in 2022, the program may need to be a “500 Club.”

Measuring the Positive Impact of Artisan’s Pricing Policies

The prices paid by Artisan (see Figure 2) are regarded by Artisan’s suppliers to be good, while perhaps “not the highest” among all competitors. The five cooperatives from which Artisan buys seem eager to continue the relationship and increase volumes. However, other than goodwill and anecdotal stories from farmers, it has been difficult for Artisan to assess the impact of either

Artisan's or the co-operative's price policies. This topic will be addressed more fully in a later section: "Challenges to Measuring Impact."

SECTION III. Improving Women's Skills in Business Management and Financial Literacy

A key determinant of female empowerment in agricultural settings is a woman's level of skill in business management and her financial literacy (OECD 2013, ICO 2018; HIVOS 2014, p 191; The New Times 2015; Nestle 2021; Boekhold 2016; DevEx 2014). The literature includes toolkits oriented to training illiterate women in money management for a small farming business and articles about a training on financial literacy given to a large group of female farmers in Rwanda. With the substantial research available on the value of financial literacy, it's not surprising that empowerment programs often start with the initiation of a microfinance fund, and the Ejo Heza group is no



Loan recipient Maria Elena Romero displaying her roasted coffee brand with El Salvador Chapter President Maria Botto. Photo Credit R. Lauretti-Bernhard

exception. In 2011, at the same time the co-operative designated the plot of land for the women to farm, the women were introduced to microcredit, and they started meeting weekly to make tiny deposits into a pooled savings account. From this account, small loans are made to the members according to policies defined and administered by the women themselves. The Ejo Heza women embraced the training fully and have continued their micro-saving and lending efforts ever since.

Artisan has always been pleased to observe that the female producers from whom they purchase have access to a functioning micro-savings and loan program. An appropriate banking function is essential for reaching development goals. The positive impact of fair prices and good agricultural practices for coffee can be leveraged and multiplied significantly when the women farmers have access to microfinance and receive training to improve their financial literacy.

Ejo Heza's program has been commended by an objective third party. A respected advisor on microfinance programs from SNV in Rwanda described Ejo Heza's microcredit program as "exemplary." On the other hand, interviews with the farmers indicate that they feel the loans are too small. Some members would like the limit on the loan amount to be raised and the duration (six months) to be increased to one year. Lauretti-Bernhard is actively working on this issue with the support FES provides to Women of Coffee "Learning Loan". The loans start as a Grameen style

“group loan”. Those women who perform well with this small loan may request larger microfinance loans with an extended loan duration, which allows them to leverage and expand on what they started with the smaller group loans.



Lauretti-Bernhard with IWCA El Salvador Microfinance team.



El Salvador coffee producer at a microfinance training.
Photo credits: R Lauretti-Bernhard

Gains from Training Opportunities

Ejo Heza members have been the beneficiaries of many years of subsidized training. They were grateful to receive financial literacy training from a non-profit, Challenges Rwanda, in 2020. The members and their spouses also received Gender Action Learning Systems (GALS) training to inspire more household goal setting and co-operation. Artisan was pleased to be part of the celebration recognizing the importance of this training to Ejo Heza’s future. Ejo Heza’s leaders were included when the co-operative received Lean at Origin training⁸ to improve management capacity and understanding of how to optimize processes.

It is not surprising that in the past twelve months, Ejo Heza has received many visits from groups of women from other co-operatives in Rwanda. They have been the beneficiaries of many programs, and in general, they have taken advantage of those programs to improve their quality of life and lift their members out of poverty. Word spreads fast when improvements happen. One female leader in a neighboring co-operative said to Church in 2021, “we noticed the women of Ejo Heza were going up, and we wanted to improve our lives also.”

⁸ Artisan Coffee Imports offers Lean at Origin training[®] to producer organizations as part of its consulting arm. Ruth Church gained experience and training in Lean Manufacturing before entering the coffee industry and saw how this operations management method allowed small manufacturers to increase profitability and better meet the needs of their large multi-national customers. She envisioned and created the curriculum to bring this training to coffee producer organizations.

SECTION IV. Enhancing Gender Equity Goals; Improving Women’s Leadership Opportunities

The trading relationship between Artisan and Kopakama includes many examples of improvements in gender equity and women’s status in the coffee sector. Some of the achievements are the direct outcomes of the trading relationship itself, other achievements in gender equity have taken place independently of Artisan’s activities.

Before Artisan began working and trading with Kopakama, the co-operative had taken significant steps toward gender inclusion in the historically male-dominated coffee business. In 2011, they started the Ejo Heza group, encouraging women farmers to support each other. They designated land with trees for the women to farm and gave them training in good agricultural practices, involving them in farmer field schools with the men. The Ejo Heza group enabled many women to practice leadership skills since the group has a president and officers and many activities to be managed. The group gave the women financial independence and opportunity through the creation of the micro-savings and credit program.

First Female Co-operative President – Marthe Uwiherewenimana

Before Artisan began working with Kopakama, the six-member co-operative board had selected Marthe Uwiherewenimana to be the board secretary. In January 2019, Uwiherewenimana was elected by the board as the co-operative’s first female president. This is after Artisan had been trading with the co-operative for three years but is independent of any influence of Artisan. Church was excited to meet and interview Uwiherewenimana about six months after she was elected. She learned that Uwiherewenimana is the principal of the primary school in the village, the mother of 11 children, and has a relatively large farm. She owns 10,000 trees. She has been a member of the Ejo Heza group since its beginning.



Marthe UWIHERWENIMANA, former president of Kopakama co-operative. (Photo credit: Andrew Timko)

Church realized Uwiherewenimana’s membership in Ejo Heza meant that she received a decent premium payment each year from Artisan. That was a fine connection to make! Uwiherewenimana

shared how much the women were amazed to receive their premium in cash in their hands at the annual Ejo Heza general assembly. Church used this moment in their discussion to ask Uwiherewenimana if she could count on the Ejo Heza women to implement new quality control processes that Artisan was encouraging – such as floating cherries to separate floaters and sinkers. Church wanted the co-operative to only buy sinkers. Uwiherewenimana was sure there would be support for such quality improvement suggestions.

Uwiherewenimana inherited a tough job. There were inconsistencies in the financial records and activities that needed to be sorted out with a long over-due audit. The local accountants for the audit advised that financial mistakes were serious enough that a national government organization should be notified. The Rwandan Co-operative Agency (RCA) sent representatives and what followed was far more complex, time-consuming and difficult than anyone could have predicted. This author does not have all the facts, but it seems mistakes were made on all sides, including poor report-writing by the RCA and political battles on the side of the cooperative. All of which led to extreme outcomes and the cooperative nearly failed.

In a best-case scenario, an agency like RCA might work to support and strengthen co-operatives in the wake of corruption—for example, recognizing and uplifting leaders like Uwiherewenimana who saw fit to expose bad practices. However, sometimes auditing agencies like this one can perceive their role to be identification of any and all errors, even when they themselves do not understand what has happened or why. Sometimes they pursue legal consequences in all cases, even if the result destroys a co-operative. Given the Government of Rwanda’s continued promise to its citizens and foreigners alike to avoid corrupt practices, a vigilant stance by the RCA is understandable.

However, Church was dismayed to see that the aftermath of RCA’s activities required Uwiherewenimana to be replaced and at least four co-operative employees to be fired. Many people, including cooperative board members, believed these individuals had served the co-operative diligently. On a positive note, at least one of these employees was later absolved by Rwanda’s courts as innocent. In retrospect, it seems that Uwiherewenimana was the leader who courageously led the co-operative into a transformational period that needed to happen.

Leaders Theresa Uwimana and Betty Uwimana

Theresa Uwimana and Betty Uwimana are two other leaders at Kopakama. The two women are not related; Uwimana is simply a common name in Rwanda. They are both currently officers within the

Ejo Heza group. Theresa is president and has been for four years, while Betty was elected Officer of Loan Documentation in 2019 and has continued to grow in her leadership capacity. Table 3 below summarizes the leadership development notes Church has made during her years of interactions with them.



Therese UWIMANA, president of the Ejo Heza women's group at Kopakama



Bette UWIMANA, manager of loan documentation for Ejo Heza

Table 3: History of Two Women-Leaders at Kopakama

	Theresa UWIMANA	Betty UWIMANA
Prior to 2016	Is elected Ejo Heza president. Owns ~ 200 trees. Has two children. Works during the off-season in her boutique store in her village.	Owns/farms ~ 600 trees. Is not an Ejo Heza member. Has two children. Works as a receptionist at the co-operative.
2016	Participates in all four days of Lean at Origin training ⁹ with Artisan. Organizes the workdays in the Ejo Heza community plot, including harvest.	Is allowed to attend the last two days of “supervisor training” with Artisan.
2017		Joins Ejo Heza

⁹ <https://artisancoffeeimports.com/consulting>, https://artisancoffeeimports.com/sites/default/files/2020-03/ACI_LEAN_Info_c.pdf

2018	Third child born.	Becomes group leader of the Sure group of Ejo Heza, leading the work, for example, on the days when fields are prepared for new trees.
2019		Elected Officer of Loan Documentation for Ejo Heza microcredit program. Third child born.
2020		
2021	Participates fully in Leadership training offered by Artisan.	Participates fully in Leadership training offered by Artisan.

Artisan Creates a Quality Control Internship for Women

Shortly after Church’s discussion with co-operative president Uwiherewenimana, she pondered how to support the co-operative’s capacity to manage high-quality microlots. The co-op had only one person with cupping skills and that man was responsible for running a coffee washing station and managing the dry mill, each of which could be full-time jobs on their own. Church knew the likelihood was zero that that individual could carefully cup daily samples and plan and implement new processes to promote Kopakama’s best coffee. At about the same time, Church was listening to her female translator and friend, Grace Izerwe, lament about how she had no way to get into the coffee industry, despite her university degree in agri-business and numerous internships and certificates.

Together, Church and Izerwe crafted the idea of an internship. Artisan would support Izerwe by initiating an MOU with co-operative leaders to allow Izerwe to work alongside their staff, assisting as much as she could with quality control activities. Artisan would pay the intern’s expenses, but Izerwe would have to donate her time. There would be no salary. Kopakama would donate the time to supervise her efforts.

Training for Izerwe – the First Quality Control Intern

In addition, since Izerwe needed cupping skills, Artisan paid for Izerwe’s training at a recently opened training company in the capital city of Kigali. Izerwe enrolled in one of the first “Coffee Expert” programs. The training was a six-week course, two hours per day, covering coffee production, processing, cupping, and roasting, and the cost was US\$300. Izerwe did well in the course and went on to be selected for scholarships for courses offered by other coffee groups in Kigali.

Impact of the Quality Control Internship

The impact of the internship was positive in more ways than imagined. First, Izerwe was able to assist the co-operative to identify small changes that could have big impacts, such as buying a small hulling machine to hull green samples for buyers. Izerwe was noticing how and where the Ejo Heza women needed support, for example, to apply fertilizer on time. Izerwe worked modestly and in ways that allowed others to accept her as part of the team, helping everyone to feel they had something to contribute. She did all this during the onset of the Coronavirus pandemic! Her first week at Kopakama was supposed to be in March 2020. Due to lockdowns, (since she lives with her husband and two small children in Kigali) she was first able to start making the weekly trip to the co-operative (four hours by bus, one-way), in June 2020.

In November 2020, the devastating outcomes of the RCA investigation took place. Four of Kopakama’s employees, including the newly appointed Executive Director, were forced out. While this was a disaster initially, silver linings began to appear. The co-operative had to replace the employees. Positions were posted, exams for the positions were given, and in March 2021, just one year after the internship had started, Izerwe was hired as Kopakama’s first-ever female Chief of Production.



Marie Grace Tuyishime Izerwe, first Artisan intern; now chief of production at Kopakama co-operative

Start of Artisan’s Scholarship for Career Transition Support

A week before Izerwe was to start her new position, Church had a call with Izerwe and heard the stress in her voice as she described that she must turn down the position with Kopakama. She would wait for something else to come along that was closer to her home in Kigali. She couldn’t put her children’s well-being at risk by being so far away every week. This sounded to Church like the counseling of worried grandparents and perhaps a husband who had relied on her to manage home activities. More phone calls helped clarify that if Artisan could augment the small salary offered by Kopakama with enough cash to pay the rent for an apartment in Rubengera (near the co-operative), pay a babysitter in Kigali, the capital city, and pay the weekly bus ticket, Izerwe could convince her family to let her try the position for at least three months.

Artisan offered US\$350/month for three months to cover these expenses. After three months, Izerwe’s comments about her new job were “I am loving it so much. I feel I am on an important mission.” Making ends meet was still difficult on her small salary, so Artisan extended the career transition support through the end of the calendar year.

Year 2 of the Quality Control Internship

With Izerwe hired into her first full-time position, Church was inspired to find the next female candidate for Quality Control Intern who had the passion but needed a “toe in the door” to launch into a coffee career. In June 2021, she asked a friend who is a professor at the University of Rwanda in agri-business to refer three candidates for interviews. One of those candidates was Alice Nshuti. Nshuti had graduated a year earlier but still had not found a job. She spoke English fluently and expressed great passion for working with coffee farmers, especially women, and no hesitation to work without a salary in places far away from the capital city.

Nshuti is now performing well as Artisan’s second quality control intern, albeit at a different co-operative. Due to Kopakama’s management difficulties, Church approached Dukundekawa co-operative in early 2021 regarding their openness to host an intern. They agreed and signed an MOU with Artisan. They asked Nshuti to work specifically with their women’s group, the Rambagirakawa women, to help them with quality and special projects. Nshuti has so far done a great job spending time with the women, humbly learning and listening to build trust and friendship. The harvest season is starting as of this writing, so the impact of her work will soon become more apparent.

Other Evidence of Women Moving into Higher positions in Rwanda's Coffee Sector



Three leaders of the Agasaro women's group of COCAGI co-operative. President Francine NYRANGIRIMANA on the far right.

In February 2019, Church was able to visit COCAGI co-operative in the Rusizi district in Southwest Rwanda. She was excited to learn this co-operative also had a women's group. They had named themselves "Agasaro," meaning "little pearls" or "beads." The tour of the co-operative revealed that they not only had a small cupping lab, but they also had two female cuppers, two female agronomists, and a female coffee washing station manager. A year later, Artisan learned the co-operative had formed a second group of female farmers in a cluster of villages far from those of the Agsaro women. This new group was named "Susaruka".

Since 2016 when Artisan first started paying a women's premium, more and more all-female co-operatives and women's groups within co-operatives have appeared on Rwanda's coffee landscape. Was it just a coincidence? Or was Artisan's action of paying women directly a spark that helped a number of initiatives get the motivation to get started formally? Most likely Artisan's spark was just a drop in a bucket that was already mostly filled by other large donor projects. For example, in 2015 Bloomberg Philanthropies announced they would invest US\$10 million in a project by Sustainable Harvest in Rwanda to train 20,000 women, the poorest of the poor, to grow quality coffee and manage their co-operatives. The project was quite successful. Artisan has interacted with its staff and studied some of their innovative practices. Today, the project has matured into an independent non-profit training organization named Sustainable Growers Rwanda and is completely independent from the for-profit Sustainable Harvest trading company.

One of the new all-female co-operatives in Rwanda is an initiative of the Rwanda Women's Coffee Alliance (RWCA), a chapter of the International Women's Coffee Alliance (www.womenincoffee.org). The RWCA used a large donation received in 2016 to purchase land in the district of Rulindo. They recruited 30 women to form the initial co-operative, which named itself KACOCO. The project got support from good connections RWCA's leaders utilized, for example selecting Retired Col. Nizeyimana Wenceslas as project leader. He is a former general in the

Rwandan army who was recently in charge of a large agricultural project in the area. RWCA received support from the government of Rwanda's programs for seedlings, and World Coffee Research planted demonstration plots. One of RWCA's members owned a washing station near the new plot of land and could support the women with market access. Artisan was able to play a small role in this project, writing the business plan for the newly formed group.

These experiences of tremendous change and growth for female organizations and leaders in Rwanda's coffee sector led us to appreciate the forces that enable women's empowerment and also helped us form recommendations for future research. These are included in the conclusion.

SECTION V. Challenges to Measuring Impact: How to Monitor Program, Social and Economic Outcomes

Tools for measuring women's empowerment and gender equity have been woefully lacking but are starting to appear. A few coffee organizations are building more understanding of the benefits of investments in women and closing gender-based gaps. A Gender Equity Index is under development by the non-profit Equal Origins, (Easson, 2022). Simultaneously, ICO is implementing projects with partners like GIZ and Oxfam to create toolkits for evaluating Gender Transformative Strategies (ICO 2021). Another toolkit, "Sustainable Coffee as a Family Business" was developed and launched in 2015 by cooperative work between Hivos, Agri-ProFocus, the Sustainable Coffee Program, and IDH the Sustainable Trade Initiative. Their toolkit emphasizes the importance of metrics and women's empowerment in coffee.



Lauretti-Bernhard in coffee forest with past IWCA Honduras Chapter President, Delmy Regalado. Photo Credit: R. Lauretti-Bernhard

While the above projects are all multi-partner efforts, the industry so far struggles to collaborate in any meaningful way when it comes to research related to a specific region or group of farmers. Artisan has had access to some excellent research conducted in 2016 with many social and economic indicators that are gender-disaggregated (the AGLC dataset). Without support to measure progress in following years, however, the data remains a point-in-time snapshot. Other groups, like the United States Africa Development Fund (USADF), have conducted baseline studies with the same

Kopakama farmers included in AGLC research in 2018 and 2019. However, USAID was unable to share their final reports “due to slow processing in the Washington, DC office.”

Non-profits such as Enveritas are a welcome example of effective collaboration. They started coming to Kopakama annually in 2020, conducting surveys that included gender-disaggregated poverty estimates. They report to the co-operative and one of Kopakama’s end buyers and have been willing to share high-level insights with Artisan. Their 2020 household survey (n=100) included ten poverty probability questions. According to the 2020 survey, Kopakama members, on average, have a 10% likelihood of being at or beneath the National Poverty Line. When the sample is gender-disaggregated, we find that the likelihood of being below the poverty line is 14% for Kopakama’s women and only 7% for Kopakama’s male farmers.¹⁰ This kind of statistic is very helpful for all parties concerned with the well-being of Kopakama’s farmers, as it clearly shows that female members are at higher risk for living in poverty than male members.

Unfortunately, aside from this one example, Artisan continues to struggle to find realistic ways to monitor the economic status of the women in the groups where Artisan pays premiums. One idea considered was to use Rwanda’s “Ubudehe” social categories. Ubudehe is a social categorization program based on income and assets. The five categories start with A, households with the highest income, and go through E, the most vulnerable households in the society. When Church learned of this national program, it seemed like a great solution to the problem of tracking economic progress. She could find out what the Ubudehe categories are for each of the women in Ejo Heza each year and compare each year to the previous year(s) to see if the “average” for the group increases over time. Sadly, it was not that easy. The co-operative leaders told Church that the Ubudehe reports would be of little to no use for two reasons:

1. Biased self-reporting. Most households do not report their income accurately because there are tax and benefit eligibility implications. Moving up from the lowest to the next lowest category means a family foregoes many government supports.
2. Consistent reporting ended in 2018. For the past three years, efforts by government agencies to collect and report Ubudehe data had been lax at best. The government had announced they would end the current Ubudehe program and start a new one. Most farmers could not remember reporting any Ubudehe information for the past three years.

¹⁰ Carl Cervone, email and dataset, June 8, 2020.

Artisan was back to square one, looking for metrics to gauge economic impact. Church decided to continue interviewing a few farmers each year. This had been started in 2019 and 2020, with interviews focused on cherry prices received. In 2021, she added ten questions from Enveritas' version of the [Poverty Probability Index](#) (PPI) to her mini survey. The questions ask about assets, such as number of cows owned and the presence of cell phones in the household, to generate an index. As national levels for the PPI have been published for Rwanda, Artisan may be able to gauge if farmer groups are improving social and economic outcomes over the years.

Another simple but effective metric is simply the number of members in the Ejo Heza group. When Artisan started in 2015, there were about 200 members. Today, there are 414. As mentioned before, when economic prosperity happens for even a few individuals in a close-knit community like those in Rwanda, word travels fast and others join if they can.

Measuring the impacts of Artisan's programs is a difficult challenge. The annual PPI survey and monitoring the number of members in the women's groups are hopefully the first steps towards more robust systems in the future.

SECTION VI. Achieving Productivity Goals: Increasing Average kg Cherry per Tree

If someone could wave a magic wand and receive the ideal impact metric, what would that metric be? This is a good question and Church believes one good answer would be to get solid measures of tree productivity, namely the average weight of cherry produced per tree. Artisan believes that tree productivity alone does not help farmers if cherry prices are too low. Neither productivity nor price alone are sufficient to motivate farmers to grow coffee. Both are necessary, in Church's view. Price can have a powerful effect on productivity. A well-known saying in several commodity value chains is "price is the best fertilizer." Price is a useful indicator, too, because it is precise, typically well-recorded, and conveys meaning in terms of quality, market demand, and other factors. Artisan has been tracking cherry prices since 2014. A higher cherry price is integral to all of Artisan's programs. What is lacking is a way to demonstrate the impact of those prices on productivity. Artisan postulates that data that proves that "price is the best fertilizer" with the specific groups of farmers receiving Artisan's women's premiums would be a significant finding for the entire industry.

Measuring the productivity of a group of farmers is, however, a big challenge. Various sources in the literature confirm that Rwanda's productivity is woefully low. Estimates range from 0.5–1.25 kg cherry per tree (World Coffee Research 2018, p 2; Aithal 2008; Perfect Daily Grind 2021). In other

countries, we see trees producing on average between 3 and 7 kg cherry/ tree (World Coffee Research 2018, p. 2; TechnoServe 2016; Clay et al 2018). A few farmers in Rwanda achieve these levels, but the country's average is what some call “poverty” levels, near 1 kg per tree. To measure productivity well, one needs measurements either for the entire group or a large random sample.

Artisan is pursuing productivity metrics and Table 4 shows the results of the most recent effort. One can see in the far right column that productivity from Artisan’s small sample ranges from 3 kg/tree for one farmer at cooperative C4 to 0.36 kg/tree for two farmers at co-operatives C1 and C5. The two key measures, the number of productive trees and kilograms of cherry harvested, are part of the two field surveys that Artisan has now conducted, in 2019 and 2021. The kg cherry harvested is determined by asking the farmer to share their delivery document for the season, (Artisan takes a photo of the document). A question on the survey from both years asks for the number of productive trees. There is likely some reporting bias in the number of trees¹¹ and, unfortunately, not every farmer will be able to show their delivery document. Sometimes the farmer does not have the document because these are collected for recording at the co-operative office. Sometimes the co-operative doesn’t give them out, which is a questionable practice.¹²

Table 4: Productivity convenience sample: 14 female producers / five co-operatives, 2021
(ranked highest to lowest productivity)

Producer code	Producer gender	Cooperative code	# productive trees	Q3- (from farmer document) total KG cherry harvested	Q3b:Tree productivity, kg cherry/tree
F9	F	C4	300	907	3.023
F8	F	C4	560	1655	2.955
F10	F	C4	235	654	2.783
F14	F	C3	1000	2046	2.046
F3	F	C2	500	893	1.784
F6	F	C3	800	1376	1.720
F4	F	C2	520	396	0.762
F12	F	C5	450	408	0.727
F5	F	C2	703	534	0.682
F13	F	C5	300	378	0.675
F7	F	C4	600	914	0.656
F2	F	C2	3000	1046	0.418
F11	F	C5	500	163	0.362
F1	F	C1	279	101	0.362
Average:			696	819.321	1.354

Source: Author’s data.

¹¹ Church has used ‘reported trees’ and kg cherry to estimate Kg cherry produced per tree with surprising low numbers as a result. With follow-up, the farmer shared that not all the trees reported were productive and with other reasons, revised down their initial report of “number of trees.”

¹² At one of Artisan’s partner co-operatives, code C5 in Table 4, the farmers did not receive delivery documents in 2021, instead receiving only a small paper receipt each time they delivered coffee. Artisan gathered the delivery data for Table 4 from the co-operative office.

Regardless of the challenges, the efforts to measure the two figures are helpful, in that measurement issues become clear and can be corrected. While so far, the measurement issues and small sample size have prevented any credible insights into productivity impact, Artisan believes the dual metrics of cherry price and tree productivity will demonstrate a strong, positive correlation over time.

SECTION VII. Impact on Sustainable Development Goals (SDGs)

Rwanda faces challenges in all the areas outlined by the United Nations' Sustainable Development Goals (SDGs)¹³. Artisan believes that in small ways, coffee trading undertaken in the manner they are pursuing can contribute to improvements in at least five of these goals:

- #1 No Poverty.
- #2 Zero Hunger.
- #3 Good Health and Well-Being.
- #5 Gender Equity.
- #8 Decent work and economic growth.

The B2B literature has started to engage with sustainability, including branding (Czinkota et al 2014), big data (Sivarajah et al 2020), business networks (Lacoste 2016), and the environment (e.g. Mariadoss et al 2011). Sharma (2020) provided an excellent summary of the limited B2B sustainability literature and called for further research on sustainability in the B2B context given the current predominant focus on consumer research. It is important to note that B2B approaches are acutely tuned to what their customers need and desire. A small importer like Artisan focuses on keywords such as: sustainable coffee production, women-produced coffee, women's economic improvement, and "fair" or "direct" traded coffee. These and similar terms send a market signal of better premiums to small producers and producers in cooperatives. B2B companies large and small are finding that branding and marketing can improve relationships and products, but there is still insufficient data to reliably demonstrate correlations.

A small business like Artisan gains both hard return on investment (ROI) and soft ROI from their personalized relationships with the Rwandan women's coffee cooperatives. Most notable is the positive brand reputation and loyalty between the company and its suppliers—the cooperatives. This is soft ROI. Proving impact with a systematic approach and hard data has not yet been possible. Despite the lack of empirical evidence, in this section we share anecdotal evidence that important

¹³ Sustainable Development Goals. <https://sdgs.un.org/goals>

global indicators are, indeed, advanced by Artisan’s work and that of other similar groups across the coffee sector.

#1 No Poverty



As mentioned above, the World Bank estimates 55% of Rwanda’s population lives below the international poverty line of US\$1.90/day (based on 2011 PPP¹⁴). The objective of SDG 1 is to wipe out extreme poverty by 2030 and ensure that no one is living on less than that poverty line. Coffee, as a cash crop, can contribute to this goal. Artisan’s program, with its premium payment to the women, contributes a small nudge to average household incomes in the Kopakama community.

#2 Zero Hunger



Artisan seeks to support this SDG indirectly through the purchase of coffee at fair prices and paying the women a premium directly. Male and female farmers have told Artisan that during the months of the year with coffee income, the family eats well. When prices are good, the family is able to eat well for more months following harvest. When prices are not good, food insecurity starts soon after harvest. As mentioned above, food insecurity in Rwanda is known to be gendered, with female-headed households more likely to be food insecure: 23% versus 17% for male-headed households. In addition, according to a 2019 study by Chronic Poverty Advisory Network, the highest food insecurity nationally is 49%, in the Rutsiro district, where Kopakama co-operative is located (Bird 2019). It seems clear to this author that the trading relationship between Artisan and Kopakama is having a positive effect on the food security status of the community served by Kopakama. However, more research would be welcome. The ways in which cash crops like coffee help or hinder the goal of zero hunger need to be better understood at the national level in Rwanda and other developing countries.

#3 Good Health and Well-Being



In the age of COVID, coffee companies are having more of a direct impact on the health and well-being of farmers than they have had in the past. One of Kopakama’s customers, Sustainable Harvest, brought a truckload of masks and hand-washing

¹⁴ The 2011 PPP, or “2011 purchasing power parity rate” refers to a currency exchange rate created by the World Bank to compare values across countries and currencies. This means that a given sum of money, when converted into US dollars at the PPP exchange rate (PPP dollars), will buy the same basket of goods in all countries.

stations to the co-operative. Understanding the urgency to keep coffee exports moving, the government of Rwanda prioritized vaccinations for co-operative members. At some co-operatives, including Kopakama, one of the benefits of co-operative membership is enrollment for at least one member of the family in the country’s health insurance program, Mituel.

Beyond these direct interventions to help co-operative members, coffee production’s impact on health and well-being is indirect. Many coffee-producing families are able to pay for Mituel health coverage, medicines, and medical services, while their neighbors are not. They may also have better health outcomes due to higher average income than their neighbors. One Ejo Heza member proudly showed Artisan her gas stove purchased with “coffee money.” The health (as well as environmental) benefits of converting from wood to gas stoves are well documented. As a further example, Lauretti-Bernhard observes that some of the Women in Coffee Microfinance Learning Loan programs offer health services like access to annual pap smears and mammograms, in addition to small-scale loans.

#5 Gender Equity



Artisan believes it is supporting gender equity in several ways. The quality control internship and career transition support described above are examples of direct investment in giving women better access to well-paying jobs in Rwanda’s coffee sector. Indirectly, through Artisan’s premium payments, more women are joining the Ejo Heza group, which implies that more households in the area are experiencing increased equity between the husband and wife, which often comes after the woman starts earning more income. This is well-documented in the literature (for example, Oxfam 2021, pg. 25, and HIVOS 2014, pg. 13) and Artisan has anecdotal evidence that when women gain economic power, their agency and recognition in the household and the community increases. One leader of a women’s group receiving Artisan’s premiums commented in an interview, “we’re happy because our husbands no longer ignore us” (Working Title 2022). It would be very useful to document the impact of “women’s premiums” on intra-household gender dynamics with solid research.

#8 Decent Work and Economic Growth



Artisan’s work with Kopakama gives us multiple stories of how this private sector trading relationship is creating decent work and economic growth. As mentioned above, the quality control internship was successful in its first year and has passed into its second year. Now another woman, a recent college graduate, is gaining

experience and training that will make her an attractive candidate for another coffee company soon.

In addition, Artisan has hired and paid at least ten young, professional Rwandans over the years, as translators and assistants who accompany Church during her fieldwork. While less impactful than the year-long internships, these short-term “windows” into the coffee sector, and Church’s willingness to support each translator in their career objectives, have proven



L to R: Two of Church's former translators. Alice Nshuti (left) is now the second Artisan intern and Joel Arusha (center) leads the coffee department for an international NGO.

valuable to many of them. In one case, Church supported student, Joel Arusha, in his interest to pursue a master's degree at the University of Rwanda with

mentoring. Most recently, Arusha sought Church’s insights as he applied for a new position in the international non-profit where he works. That organization had, for the first time, posted a position for a coffee sector entrepreneur. While the group had been successful in supporting food-crop farmers, they wanted someone to explore their options to support farmers growing coffee. Arusha’s hard work on a coffee business plan and his convincing perspectives landed him the job.

SECTION VIII. Conclusions

While the impact of these multi-pronged investments in the women of this co-operative has yet to be definitively quantified and validated, the number of visits from other women’s groups to “see what Ejo Heza is doing” is an indication that the improvements to livelihoods among them are sustainable and leading to a better tomorrow – Ejo Heza.

We believe this case study of a private sector company operating in the coffee supply chain offers the following illustrations:

1. Provides a real-world approach to building women’s economic empowerment, through direct investment (premiums), business skills, financial literacy, and access to savings and credit.
2. Provides a private-sector approach to building women’s “social empowerment,” in contrast to “donor assistance,” since the latter is not always sustainable. In Rwanda, there is recognition by policymakers that women are legitimate economic actors.

3. Artisan’s business case can be seen as another data point indicating that direct investments in women are a viable option when seeking positive development outcomes, including improved intra-household decision-making.
4. The B2B principles described demonstrate how premiums paid year after year can incentivize participation by farmers in a cash crop like coffee.
5. Small decisions by big brands are influential—for example, Peet’s purchase of one container of Ejo Heza women-grown coffee.
6. Artisan’s 300 Club is an innovation on the frontier of shifting value distribution in a global commodity market. Therefore, it is not surprising that the program encounters resistance from those benefiting from the status quo.
7. Multi-pronged, gender-focused support seems to have played a role in Ejo Heza’s success. Training and programs for the women ranging from land donation from the cooperative to financial literacy training have demonstrably benefited members.
8. Female leaders such as Marthe Uwiherewenimana, Therese Uwimana, and Betty Uwimana have helped pave the way to sustainability for the co-operative and all its members.
9. Many groups are conducting research in the same region, with the same farmers, yet little to no data sharing or collaboration is occurring, resulting in fewer insights for everyone.
10. Artisan’s hypothesis is that cherry price and tree productivity will demonstrate a strong, positive correlation. Data collection in small samples is underway.
11. SDGs like “no poverty,” “zero hunger” and “gender equity” seem to be supported by B2B business models like Artisan’s, but causal evidence is not available.

Further Research Recommended

The example described in this case study has shortcomings. First, it is limited in scope. The experience of a single importer with a particular co-operative cannot be generalized to all importers or co-operatives. Further research on the topic of business-to-business impacts in the coffee supply chain is encouraged. Church and Lauretti-Bernhard recommend the following:

- **Research to establish realistic metrics of impact on living standards** and empowerment indicators created by gender-focused programs, such as those practiced by Artisan and Ejo Heza. It is inherently difficult to identify with any certainty the impact of paying premiums to women. Current efforts to build consensus on gender metrics in global coffee have focused primarily on the hypothesis that training will lead to empowerment,

which will lead to higher incomes for women. We recommend research on the reverse hypothesis that higher incomes can lead to empowerment. Programs such as Partnership for Gender Equity¹⁵ measure the impacts of training programs. The Gender Equity Index currently focuses on self-evaluation of training programs for agriculture extension and service providers, (Easson, 2022). The CARE Gender Marker tool is not specific to coffee, (CARE, 2021). The ICO Gender Transformative Tracker Tool (ICO, 2021) comes closest to being a tool that could be of interest to Artisan. Although, like other tools, the ICO's Tracker seems prone to analysis-paralysis with its focus on data collection prior to implementation. This case study illustrates more of a trial-and-error approach similar to those adopted by start-up firms and described in the entrepreneurial literature. We recommend more research on pricing and contracting efforts in business-to-business relationships, and their subsequent impact on women's empowerment.

- **Support more studies analyzing the relationship between coffee volume and value (i.e. quality).** With smaller farms and higher costs of production per kilogram cherry, markets for high quality, high value coffee are more likely to fit Rwandan women-grown coffee. An initial study by Church (2018) offers a plausible strategy for Rwandan coffee exporters to convert to more focus on quality instead of volume. The paper is limited, however, since it is theoretical only. The study also recommends further research studying primary data on Rwandan exports to validate claims that quality instead of quantity will return higher profits to exporters and all stakeholders in the Rwandan coffee value chain.
- **Further research of privately owned coffee processing organizations versus ones that are cooperatively owned.** Such studies provide valuable lessons for both private and cooperatively owned organizations. A 2017 paper by the Africa Great Lakes Coffee support project shared results from random samples specifically designed to compare private versus cooperatively owned comparison. Much has changed in the last five years, so updated research is needed. A new study could focus more on the variability of governance at cooperatives.
- **Further research on the wide variability of co-operative governance, and inherent challenges for them to operate as businesses.** Many stakeholders in the Rwandan coffee value chain would benefit from a stronger understanding of the wide variability in

¹⁵ A Common Measurement Framework For Gender Equity in the Coffee Sector, November 2017

how cooperatives function in Rwanda. CLUSA (Cooperative League of the United States) which is now known as National Cooperative Business Association-NCBA, has done work with cooperatives for 50 years in the overseas context in coffee and other value chains as well (CLUSA, 2022). The research shows that the co-op business model is a fraught business model. This is true in many countries where coffee/cacao are produced, especially when they have authoritarian governments. Rarely do they work as a true co-operative. In the developing economy context, co-ops are often government created and their governance is much like that of state-owned entities.

- An example is a cooperative’s willingness to accept the terms of contracts, like Artisan’s, which pay a per kilogram premium to women. “Paying women more than men” is an issue in some cooperatives and not in others. Leaders of some cooperatives interpret the core values of co-operatives to mean that “each member must be paid the same.” Other co-op leaders seem to recognize that supporting women is a kind of social retribution for harm inflicted in the past and that co-op by-laws allow for payments for special work, such as tending a community plot and delivering cherry on specific days. Artisan plans to continue paying premiums to the women.
- **Support for studies on the growth and remarkable prevalence of women’s groups** in the coffee sector in Rwanda. Anecdotally, it seems the number of women’s groups has multiplied significantly over the past 18 years, 2004 – 2022. What are the drivers of the growth of the number of women involved in this economic activity of coffee production? What are the benefits to households and communities, and can these benefits be enhanced?
- We highly recommend funding be allocated to track how many new women’s coffee groups have been formed in Rwanda’s coffee sector over the past 10 years, and then continue tracking this number in the future. Can and should such formation of women’s groups be replicated and further promoted?
- **Studies tracking the number of females in higher level positions in the coffee value chain.** The Rwandan government or other research organizations could consider tracking the number or percent of females in positions in the coffee sector which have been traditionally held by males, for example, executive director, washing station manager, machinist, quality control, etc. “What gets measured gets noticed.”

- Qualitative research could be funded to better understand the leadership qualities and the enabling environment that led to success for the women described in this report and also to explore and learn from the hardships that caused some promising female leaders to leave their positions in the coffee sector.
- A study documenting the impact on intra-household gender dynamics when premium payments are paid to women for women's coffee.
- Further research on the significance of the B2B approaches in the coffee sector.
- Needs assessment on financial literacy among female coffee producers. A follow-on study could estimate the impact of programs bringing more financial literacy skills to women in the coffee sector.

Policy Recommendations

The topics explored in this case study touch on several policy areas that may be of interest to the Government of Rwanda and other actors in Rwanda's coffee sector. Some topics are broadly applicable to other coffee-producing countries.

- Transparent land tenure systems are critical with the judicial backbone to support them.
- Support for appropriate financial intermediation for women's needs, e.g., micro-savings and loan programs and financial literacy training in local languages. Ideally, government matching could extend the impact of microcredit programs, accelerating the impact of the local investments.
- Government support can be enhanced for women's career transitions. Bright, educated women like Izerwe may need a year's stipend to help them cover childcare, transportation, and extra living expenses that make or break their ability to take a position that can further their career. When males take similar positions, the backup systems are "built into the culture". For women, even in an egalitarian culture like Rwanda's, not so much.
- Upgrade coffee marketing board policies to support women coffee producers' premiums.
- Increase government support to collect data on women's economic contributions in the coffee value chain.
- Increase government support to collect data on the impact on SDGs of B2B programs implemented with a gender lens.

A question for all readers

The trading relationship between Artisan and Kopakama has a unique focus on gender but takes a departure from classic “donor driven” approaches that typically provide limited support to improve on farm production. Artisan considers not only “gendered factors” but also economic factors that impact both the women, the cooperative businesses and national Rwandan economic impacts. To conclude this study, the authors suggest readers consider this question: If more importers used the same business model, would we see improved economic outcomes for women in coffee businesses and at the same time build consumer loyalty to roaster brands?

Author Biographies



Roberta Lauretti-Bernhard, one of the three Principles of FES, has a background in agribusiness, supply/value chain analysis, food safety, food systems, women in agriculture, and gender analysis. Lauretti-Bernhard works with women coffee producers on issues of market access, climate change impacts of agroforestry crops (coffee & cacao), and business literacy skills. During her career, Roberta has worked in various value chains, including coffee, and has focused her work on women and young producers in particular. As a technical advisor for the International Women’s Coffee Alliance (IWCA), Roberta is a co-creator of a “Women in Coffee Microfinance Learning Loan” program and co-authored its microfinance training manual. The project has worked with four IWCA country chapters to raise seed money and start their microfinance programs.



Ruth Ann Church, president of Artisan Coffee Imports, founded the company in 2009 with the mission to trade coffee in sustainable ways that improve the lives of farmers. She brings an academic background in economic development and twenty years of experience in international business. She feels fortunate to have been included in a Michigan State University project, 2015 – 2018, focused on improving productivity of the coffee sector in Rwanda. Funded by USAID, this project gave Church a network within Rwanda’s coffee community. Church has led research and consulting projects, including Rainforest Alliance research on living income and cooperative training for Sustainable Growers Rwanda and USAID. Church was a volunteer board member for the IWCA, 2015 – 2019, and is a frequent presenter at coffee industry events such as SCA Expo and Re:Co Symposium.

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Appendix – Foreign Exchange Rate History: Rwanda franc (RWF) to US dollar (USD)

RWF to USD Foreign Exchange Rates	
Year	Average
2015	712.00 Rwf
2016	780.00 Rwf
2017	838.00 Rwf
2018	868.00 Rwf
2019	911.00 Rwf
2020	957.00 Rwf
2021	1001.00 Rwf
2022	1026.00 Rwf

Source: exchangerates.org.uk