



Using Procurement Practice to Promote Economic Viability for Small-Scale Coffee Growers

An Opportunity to Grow Farmer Incomes

February 26, 2020

Summary

In origins around the world, small-scale coffee farmers are living in poverty—jeopardizing the sustainability of corporate supply chains and of the coffee sector in general. This memo describes an equitable trading practice currently being piloted by S&D Coffee and Tea in Colombia and elsewhere to raise farmer incomes beyond the poverty line to the living income level. There's a leadership opportunity for large buyers of agricultural raw materials to use their scale and purchasing power to roll out this model in partnership with their supply chain partners like S&D—following through on responsible sourcing commitments to economic viability, ensuring security of supply, reducing price volatility, and enabling farmers to also invest in improving quality and environmental sustainability.

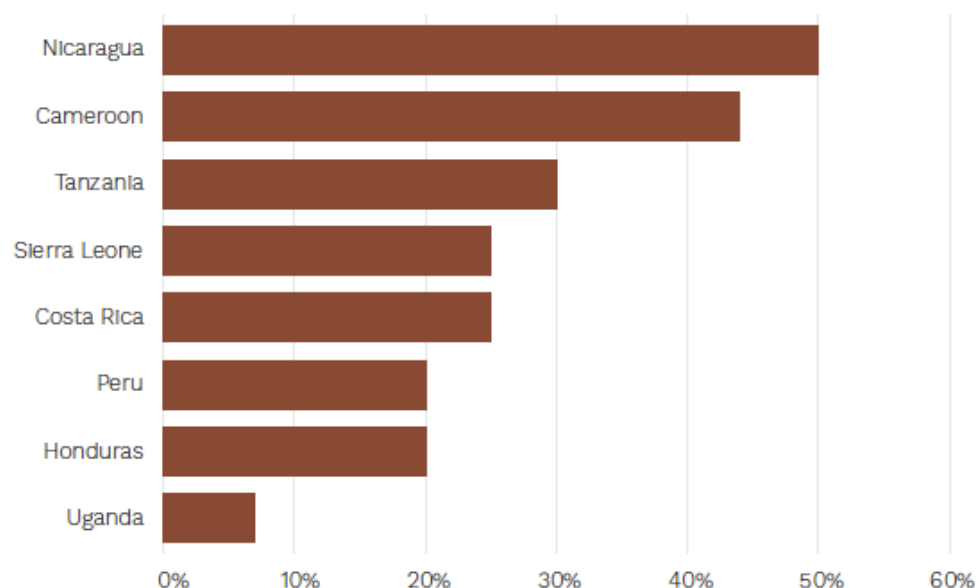
The Urgency

Coffee farmers are at a crossroads, and their economic viability will be key to the sector's sustainability.

Through the usual cycles of boom and bust, the price of coffee in the futures market has remained roughly the same for the last 47 years, resulting in a significant decrease in farmers' purchasing powerⁱ even as the cost of production in local currency has nearly doubled in major production regions in the last decade alone. In high-cost origins, 25-50% of farmers are unable to cover their production costs.ⁱⁱ

This has caused growers' incomes to decline and put their livelihoods increasingly at risk. The proportion of farmers living under the World Bank poverty line (\$1.90 a day) has increased in several countries (see Figure 1). Strained liquidity leads growers to reduce use of seasonal inputs, skip labor-intensive activities, and defer investment in their farms. The risk of pests and diseases spreading across coffee areas increases, as does vulnerability to the impact of climate change.ⁱⁱⁱ This continues to dampen productivity and sustainability efforts.

Figure 1. Increase in the number of farmers living under the World Bank poverty line



Source: International Coffee Organization [Coffee Development Report 2019. Growing for prosperity: Economic viability as the catalyst for a sustainable coffee sector](#). Page 32.

According to the International Coffee Organization, the impacts of farmer poverty pose a serious risk to the sustainability of the coffee sector and to future coffee supply.^{iv} Traditional corporate procurement practices can exacerbate it by shifting risk to growers, putting downward pressure on the prices they receive, and preventing them from planning long-term.^v Studies show that certification has had little effect on these variables.^{vi}

And this situation is unfolding as consumers, regulators, and investors are paying increasing attention to the way companies manage social and environmental risk in their supply chains. Investors, for example, are responding to studies showing that companies' performance on material social and environmental issues has statistically significant effects on their valuations and margins.^{vii} An estimated 58% of global asset owners are either implementing or evaluating environmental, social, and governance considerations in their investment strategies.^{viii}

The North Star

It is in the shared interests of small-scale farmers and companies that depend on the coffee they grow for farmers to earn a “living income.”

“Living income” is defined as the net annual income a household in a particular place would need to afford a decent standard of living for all household members.^{ix} Regional living income benchmarks are based on comprehensive measurements of the cost of food, decent housing, education, healthcare, and other essential needs, plus an allowance for unexpected events such as medical emergencies.

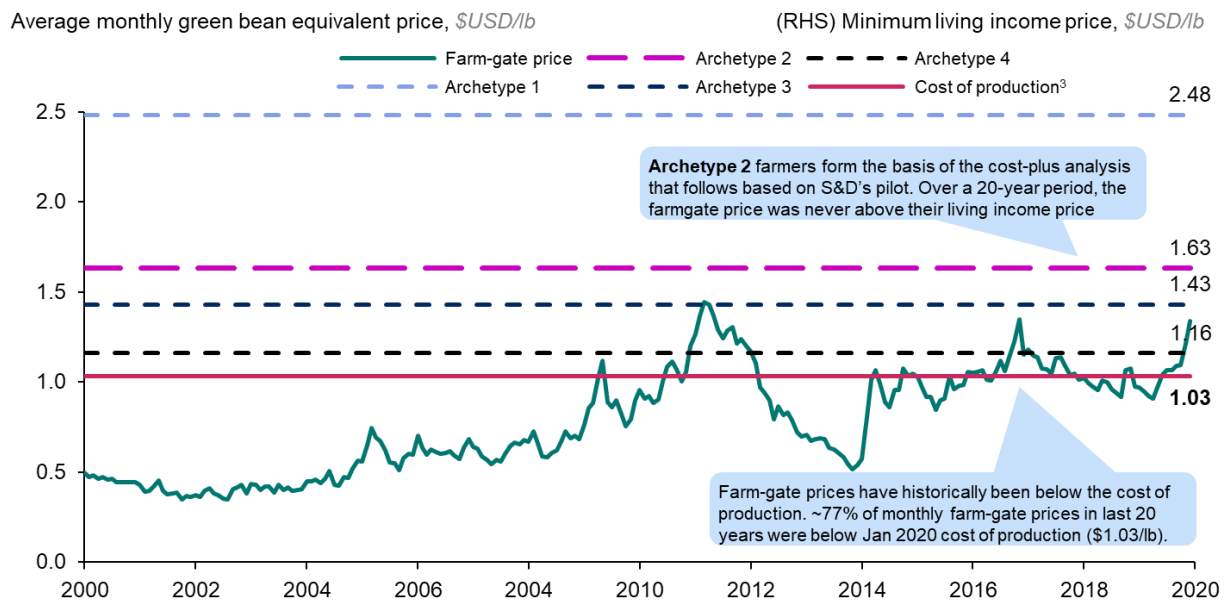
Living income goes beyond what is needed for subsistence and survival, and that is why it makes sense as a target for buyers in their responsible sourcing programs. Over the long term, buyers need farmers to do more than just survive to keep growing the coffee we depend on.

The Opportunity in Colombia

In Colombia, many small-scale farmers do not even cover their production costs—much less earn a living income.

A recent study by the Task Force for Coffee Living Incomes (TCLI)—a group made up of coffee roasters, traders, producers’ associations, and NGOs headed by IDH (the Sustainable Trade Initiative)—segmented Colombian coffee farmers into four archetypes based on factors such as farm size and market served, and calculated what prices they would need to receive per pound of coffee in order to achieve a living income. ~80% of the farmers in S&D’s Colombian cluster belong to Archetype 2, with an average of 2.7 ha of land each. These farmers would need to earn at least \$1.63 per bag of coffee they sell to reach a living income, an amount the farm gate price hasn’t reached in the last 20 years. They would need to more than double their current total income to reach the low end of the living income benchmark range. These farmers are currently living well below the World Bank poverty line of \$1.90 per day, often failing to cover their full production costs (see Figures 2 and 3).

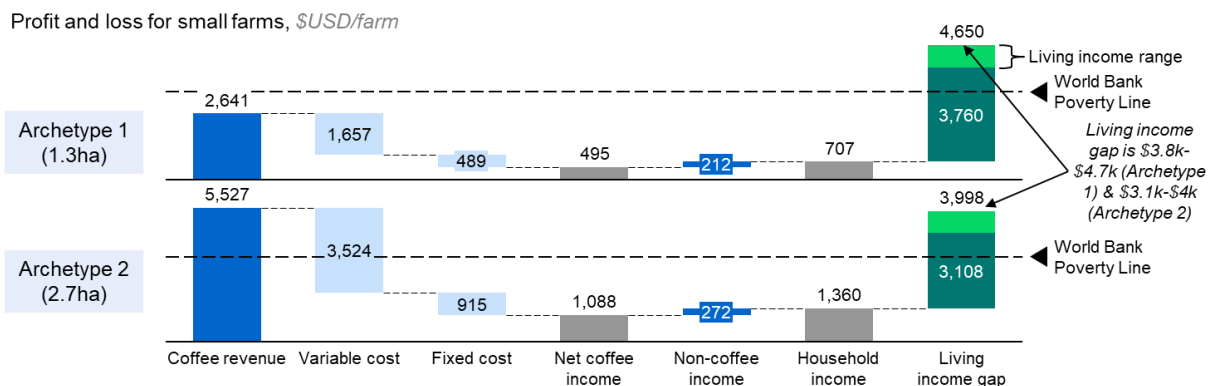
Figure 2. Gap between farm-gate and living income price per pound coffee in Colombia



- 1 Archetypes based on farmer attributes such as farm size and nature of coffee production defined as: Archetype 1 – conventional with 1.3ha, Archetype 2 – conventional with sustainability value recognition ranging 2.7-25.4ha, Archetype 3 – high value consumer experience ranging 1.9-17.3ha and Archetype 4 – specialty coffee ranging 3.75-19ha.
- 2 Living incomes determined through profit-and-loss analysis of representative small farms including non-coffee income. Results tested for robustness against yield, price and farm size. Lower value of calculated range represented on chart (e.g., range for Archetype 2 is \$1.63-1.80/lb).
- 3 Estimated cost of production for Colombian farmers (Jan 2020 published FNC data)

Source: National Federation of Colombian Coffee Growers (FNC); Task Force for Coffee Living Incomes

Figure 3. Gap between total household income and living income benchmark for coffee farmers in Colombia

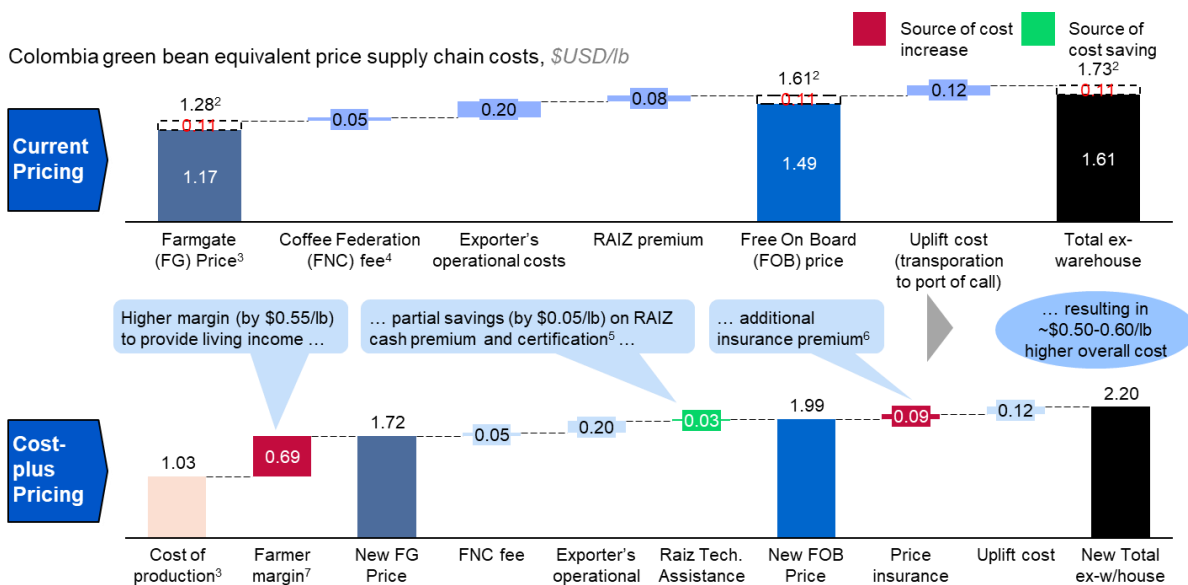


Source: Vellema et. al. (2015) cited in report of the Task Force for Coffee Living Incomes; International Coffee Organization and University of California-Davis (2019); iséal alliance – www.living-income.com

With one group of Colombian coffee farmers, S&D Coffee has been piloting a new model that has enabled participating farmers to achieve living incomes at an additional cost of \$0.50-0.60 per pound, depending on current market prices. The model involves:

- Longer-term contracts, typically 2-3 years in length
- Cost-plus pricing, comprising a cost of production component and an additional margin calculated to close the living income gap
- Price insurance that reduces farmers’ incentive to side-sell when market prices exceed contract prices and protects buyers when market prices fall below contract prices.

Figure 4. Comparison between current pricing model and cost-plus pricing model



- 1 Supply chain costs collected as part of S&D's Abejorral Raiz cluster covering 355 farmers in Colombia
- 2 10-year historical FG average was \$1.28/lb showing that the actual incremental cost of the cost-plus model may be lower if market prices rally. Incremental cost results shown as estimated range under current price (i.e., \$2.20 minus \$1.73-\$1.61/lb minus = ~\$0.50-0.60/lb)
- 3 Based on published FNC data (Jan 2020)
- 4 Flat fee tax to finance National Coffee Federation's operations
- 5 Five cents cash premium saving as farmers are given sufficient margin and S&D manage traceability and reporting. Technical assistance still required.
- 6 Estimated insurance premium cost to defend farmer supply when market price rallies and maintain farmer living income when market prices fall.
- 7 Farmer margin derived from the difference in the mid-range living income price for Archetype 2 (\$1.63-\$1.80/lb) and FNC cost of production value (Jan 2020). By contrast, at \$1.17/lb FG price, farmers would receive only 20% of the required margin to obtain a living income.

Source: S&D Coffee; RGC Coffee; expert interviews; team analysis

Farmer feedback from a similar initiative in S&D Coffee’s supply chain in Nicaragua suggests that this model has not only reduced poverty and allowed participating farmers to achieve a living income, but also allowed them to invest in labor-intensive activities and infrastructure they would otherwise have had to forego—partly by allowing them to focus on the business of farming, rather than looking for other sources

of income to cover their costs, and partly by allowing them to obtain financing. We expect feedback from our Colombian farmers to run along the same lines.

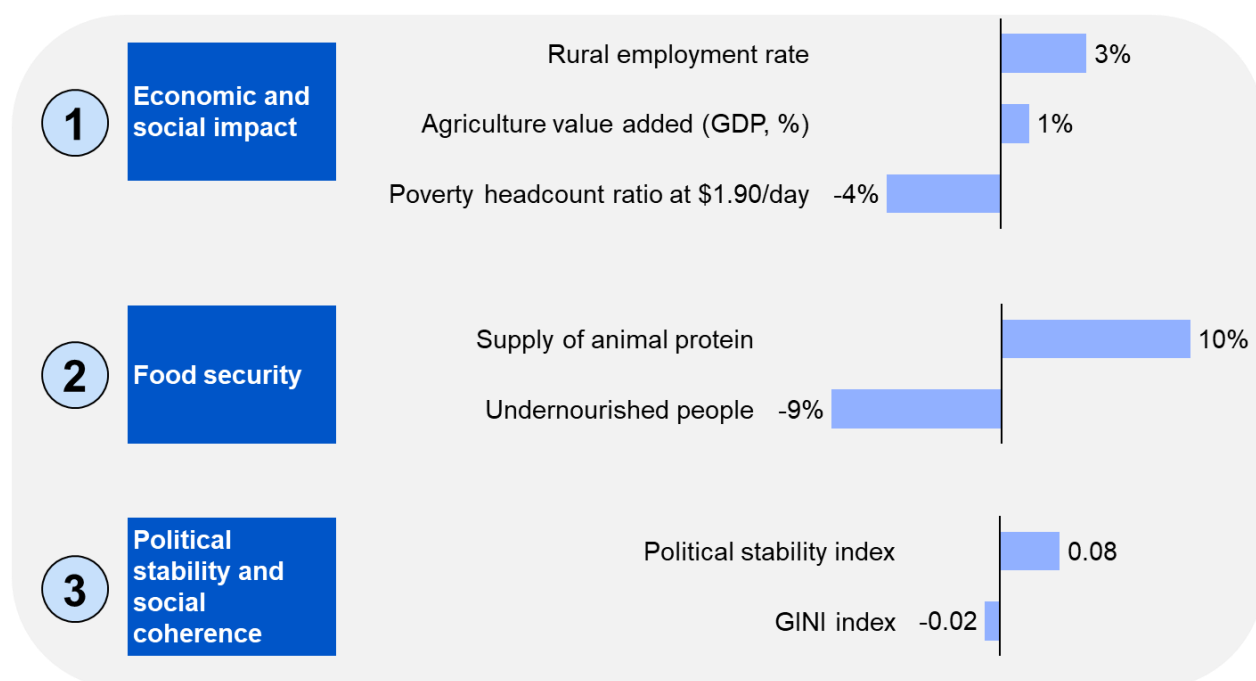
“I invested to improve infrastructure for coffee pulp retention, housing for workers, a wet mill and to improved coffee plantations management.”(sic)—René Herrera, Farm El Ranchón

“I improved my storage space for agrochemicals.”—Marta Lorena Ochoa, Farm El Almendro

“I bought 0.7 hectares that were unused land without trees, and planted coffee using a agroforestry system. I planted 60 new forest trees used for shade for the coffee plantation.”(sic)—Pedro Gutierrez, Farm San Pedro

It is important to note that such investments can not only improve incomes and standards of living for the farmers making them, but also have broader spillover effects in rural economies. While S&D Coffee has not had the timeframe nor the resources to measure them for our pilots, the results from an International Coffee Organization study using data from the World Bank, Food and Agriculture Organization, and others are indicative.

Figure 5. Relationship between 1% increase in coffee prices and key development indicators



1 Sample of countries included in the analysis comprises all ICO Member countries. Results are statistically significant at least at the 10% level
 2 Food security results are significant for countries which are highly dependent on coffee (i.e., high share of coffee in total export value)

Source: International Coffee Organization Coffee Development Report 2019 (data: World Bank, FAO, PWT, FRED)

There are opportunities for major companies to scale up this cost-plus model. For the buyer, this is an opportunity to demonstrate leadership in using its scale and purchasing power to meaningfully increase small-scale coffee farmers’ incomes—following through on responsible sourcing commitments to economic viability, ensuring security of supply, reducing price volatility, and enabling farmers to invest in improving quality and environmental sustainability. For S&D’s case, we see three options for rolling-out a pilot for cost-plus pricing on coffee in Colombia:

1. Full roll-out/full living income coffee pricing

Roll-out of current cost-plus model to all S&D’s target Colombian small-scale coffee farmers (<5ha farmers with average ~2.7ha/farm) over three years. This would aim to raise the incomes of ~1,600 farming families and ~8,000 individuals above the poverty line and to a living income level, at an additional annual cost of ~\$15M to ~\$19M by year three depending on market prices (see Figure 6 for a potential phased plan over three years).

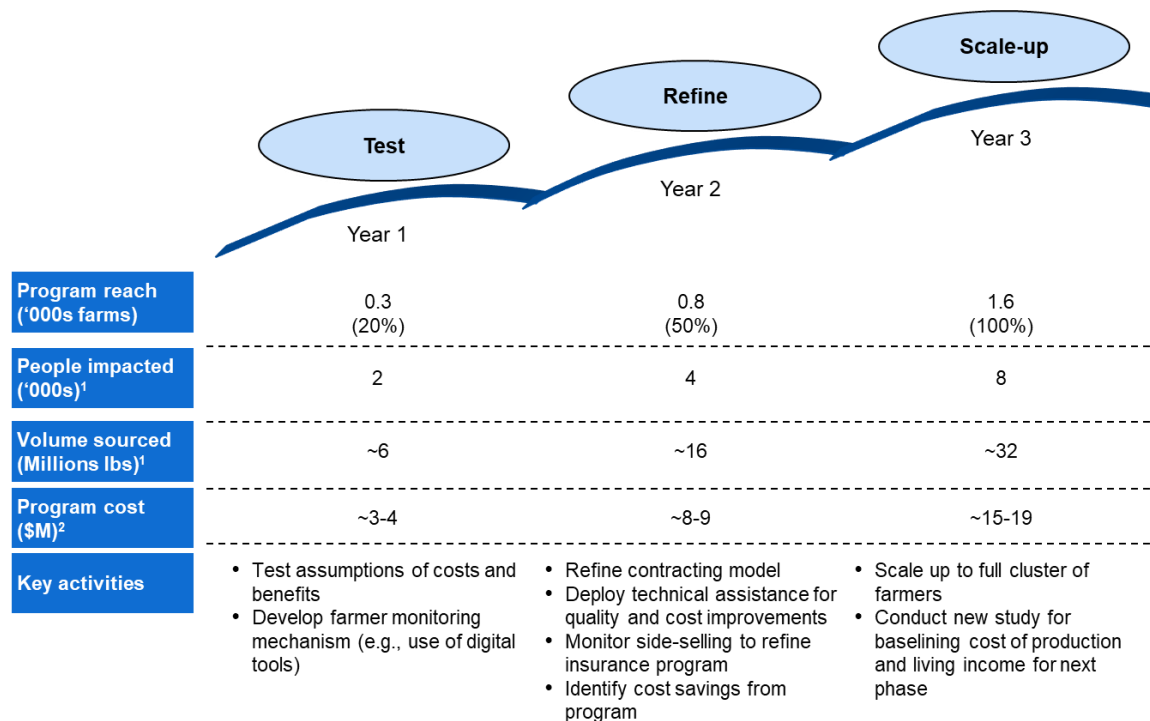
2. Full roll-out/partial living income coffee pricing

Roll-out of current cost-plus model to all of S&D’s Colombian small-scale coffee farmers, closing 50% of the gap to a living income—to test the full impact on farmers and on the business. The additional total annual cost would be ~\$8M to ~\$9M.

3. Partial roll-out/partial living income pricing

Roll-out of current cost-plus model to 50% of S&D’s Colombian small-scale coffee farmers, closing 50% of the gap to a living income —to gradually test the impacts on farmers and on the business. The additional total annual cost would be ~\$4M to ~\$5M.

Figure 6. Full scale/full living income margin roll-out for cost-plus model



1 Based on average 5 member household. Average farm size is 2.7ha based on single S&D Colombian cluster (Olam Quindio) with 9MT/farm volume.
 2 Estimated cost from incremental price paid to farmers (\$0.60/lb) x volume sourced from cluster in each phase (assuming no further efficiency gain)

Source: S&D Coffee; Expert interviews; Team analysis

ⁱ IDH. Forthcoming. “Report of the Task Force on Coffee Living Income: A Fact-Based Exploration of the Living Income Gap to Develop Effective Sourcing and Pricing Strategies that Close the Gap.” Page 3.

ⁱⁱ International Coffee Organization (ICO). 2019. “Coffee Development Report 2019. Growing for prosperity: Economic viability as the catalyst for a sustainable coffee sector.” Page 12.

ⁱⁱⁱ ICO 2019, page 12.

^{iv} ICO 2019, page 10.

^v Mars’ Farmer Income Lab. Forthcoming. “Disrupting Commodities.”

^{vi} Wageningen University and Research. 2018. “Income intervention quick scan: Certification.”

^{vii} See e.g. Boston Consulting Group (BCG). 2017. “Total Societal Impact: A New Lens for Strategy.”

^{viii} FTSE Russell. 2019. “Smart Beta: 2019 Global Asset Owner Survey.”

^{ix} Living Income Community of Practice.