

BACKGROUND PAPER:

Disrupting Commodities

October 2019



ABOUT THIS PAPER

Around the world, an estimated 35 million smallholder farming households (177 million people) participate in global supply chains—and up to 24 million of them (122 million people) are living in poverty based on a threshold income of \$3.10 per day. To future-proof our supply chains and contribute to Sustainable Development Goal 1, no poverty, the Farmer Income Lab is bringing companies together with governments and civil society groups to design and activate supply chains in which farmers and businesses can truly thrive.

The Farmer Income Lab has commissioned this paper to provide background information on the current state of practice in the procurement of commodities predominantly grown by smallholder farmers. It is intended to provide participants in its October 29-30 Disrupting Commodities workshop with the shared baseline understanding needed for a creative, collaborative discussion of the future of global supply chains. It has been prepared based on desk research and 25 interviews with procurement executives and other smallholder agriculture experts. Interviews were conducted in confidence to encourage participants to speak freely, and their insights are presented in the aggregate. Unattributed quotes are used throughout the paper.

This report was prepared by Richard Rogers, Managing Director of Rogers MacJohn LLC, in collaboration with Beth Jenkins, Managing Director of SocialSide. Please direct any questions and comments to Richard Rogers at richard.rogers@rogersmacjohn.com.

SUMMARY

Procurement executives say sourcing raw materials from smallholder farmers can be challenging, with variable quality, high transaction costs, weak contract enforcement, poor visibility down to the farm level, and complex logistics. These problems are interconnected, and strongly related to poverty, market failures, and governance gaps in developing countries.

At the same time, global trends are influencing the operating environment for global food and agriculture companies and their commodity buyers, making farmer poverty and related issues—like deforestation and human rights—more important. Population growth, a growing middle class, climate change, and water stress are beginning to drive a wedge between supply and demand for key commodities. Against this backdrop, investors, policy makers, customers, and consumers increasingly expect global companies to engage with smallholder farmers in fair and equitable ways that deliver decent incomes and labor standards as well as protect the environment.

These changes are amplifying risks to security of supply, cost, reputation, and regulatory compliance, risks that procurement executives are typically charged with managing. However, procurement executives feel constrained in their ability to manage these risks due to marketing, product development, and other business decisions; short-term pressures that drive an overriding focus on cost; separated sustainability and procurement functions; and frequent staff changes. Procurement executives can also lack the capabilities, skills, or knowledge of farming conditions within the sourcing regions that are needed to envision and activate more sustainable sourcing approaches.

As a result of these constraints, most procurement executives default to traditional procurement practices such as spot market purchasing, electronic tendering, and short-term contracting, with limited understanding of origin market conditions. These practices, designed to maximize short-term profits, are proving incapable of improving farmer incomes and delivering the more sustainable supply chains that are needed and expected. For this reason, a few companies are currently experimenting with approaches intended to distribute risk and value more equitably, which are demonstrating promising results so far. These include supply chain consolidation and simplification, longer-term contracting, and cost-plus pricing, among others.

Recognizing that competitive pressures and systemic barriers such as government policy affect what any single company can do on its own, there has been a proliferation of multi-stakeholder platforms that aim to improve social and environmental outcomes in smallholder farming communities—but evidence of their effectiveness to deliver step change in farmer incomes is still limited.

This research suggests that the time is right for a conversation about how global businesses can disrupt the way smallholder-produced commodities are bought and sold in order to reduce farmer poverty in global supply chains so that markets, businesses, and most importantly farming families can thrive. And it suggests that procurement executives have a strategic role to play.

DISRUPTING COMMODITIES

Our research suggests that companies that depend on commodities grown by smallholder farmers are at a crossroads. Efforts focused on productivity, philanthropic support and certification have not moved the needle enough. To secure long-term supplies and meet mounting expectations from investors, regulators, and consumers, companies need innovative new approaches in how commodities are bought and sold—approaches that deliver step changes in the incomes of those who grow them.

Procurement executives say sourcing from smallholder farmers can be challenging.

Buyers of commodities like cocoa, coffee, cotton and other crops predominantly grown by smallholder farmers can experience variable quality, high transaction costs, weak contract enforcement, poor visibility down to the farm level, and complex logistics. These challenges are rooted in some of the key characteristics of smallholder production:

- **Small farm size:** More than 475 million farms, an estimated 84% of farms worldwide, are less than 2 hectares in size (72% are less than 1 hectare).¹ Together, these farms make up just 12% of the world's agricultural land.²
- **Low yields:** For smallholder growers of cocoa and cotton in Africa, for example, yields are less than half of what they could be. In cocoa, yield ranges from about 400-600 kilograms per hectare³ compared to a theoretical maximum of 1.5 metric tons.⁴ African cotton lint yields have been estimated at about 320 kg/ha, compared to a world average of 780 kg/ha.⁵
- **Food safety and quality issues:** Smallholders are hit particularly hard by aflatoxin, for example, which comes from mold and causes liver disease. In the 1960s, Africa accounted for 77% of global peanut exports; now, with rigorous standards in place in many export markets, its share is just 4%.⁶ Other common issues include improperly dried cocoa and coffee beans and incorrect varieties of rice.
- **Deforestation:** According to Food and Agriculture Organization data, nearly 30% of deforestation in tropical areas is caused by the direct conversion of forests into small-scale farming.⁷
- **Child labor:** As of 2018, there were 108 million children working in agriculture worldwide, an increase of 10 million from 2012.⁸ Approximately 70% of child labor takes place in agriculture, two thirds of this on family farms or alongside family members in seasonal labor.⁹

These problems are interconnected, and strongly related to poverty. Of more than 500 million smallholder farming households worldwide, approximately 44% are estimated to be moderately or extremely poor. Of the 35 million estimated to participate in global supply chains (177 million people), as many as 24 million (122 million people) may be living in poverty using a poverty line of \$3.10 per day. Up to 9 million of these households (47 million people) may be living in extreme poverty, earning under \$1.90 per day.¹⁰

Small farm size acts as a limit on economies of scale and profit potential. Scant profits, lack of access to financial services and to training keep farmers from investing in inputs and adopting agricultural best practices that would improve productivity and quality. Low productivity of existing agricultural land drives farmers to bring new, forested land under cultivation in order to increase their incomes. And economic pressures, along with cultural factors and a lack of access to quality schooling, lead parents to enlist their children to work.

Poverty impacts smallholders' lives in many ways. According to research by the UN Food and Agriculture Organization, most smallholder farming families endure poor housing conditions, such as dirt floors, and severely limited access to electricity, running water, and proper toilets. Poor sanitation, in turn, contributes to chronic diarrhea—one of the primary causes of death in children under five—and undernutrition. It takes the average smallholder 11 minutes to reach a paved road, which limits access to markets and services like education and healthcare.¹¹ And as the Consultative Group to Assist the Poor reports, poverty leaves smallholders ill-equipped to deal with risks, from injuries to crop failures.¹²

The root causes of smallholder farmer poverty are complex, and there are many barriers to increasing their incomes. A paper developed by Oxfam for the Farmer Income Lab last year argued that “at the core of the living income challenge for small-scale farmers lies a significant imbalance between the risks of agriculture shouldered by farmers and their power to shape their own market participation”—an imbalance that global buyers have a role to play in addressing.¹³ The paper identified barriers to farmer income growth in three categories, outlined in Box 1 below.

“Put yourself for a moment in the shoes of a small-scale farmer in rural Mozambique. Two weeks before harvest, a massive flood wipes out your entire maize crop. You had been counting on this harvest for most of your annual income and much of your food. What would you do?”

- Smallholder Diaries, Consultative Group to Assist the Poor¹⁴

BOX 1: Barriers to increasing smallholder farmer incomes



1 Risks that deter farmers from investing in their farms, such as fluctuations in crop prices, unpredictable rainfall, and land ownership issues.



2 Power asymmetries between farmers and larger players in the supply chain that restrict farmers' access to profitable markets and limit their bargaining power.



3 Structural barriers that underpin many of these risks and power asymmetries, such as a lack of professional farmer organizations, consolidation at the buyer level, market-based pricing mechanisms, and export promotion strategies.

At the same time, key global trends are changing the operating environment for global food and agriculture companies and their commodity buyers, making sustainability issues like smallholder farmer poverty more important.

These trends include environmental and socio-economic shifts that are increasing demand for food and limiting the growth of supply, mounting expectations from consumers, regulators, and investors, as well as technological innovation that is making information about corporate supply chains increasingly available to all.

Environmental and socio-economic shifts are affecting supply and demand for food

First, a growing population combined with a warming climate, degrading soils, and increasing water scarcity are setting the stage for large-scale changes in the way the world produces and consumes food. Demand for food is increasing just as the world is running up against limits to the growth of supply. With the global population projected to reach 9.7 billion¹⁵ and hundreds of millions of people joining the middle class each year,¹⁶ demand for food is on track to increase by more than 50% by 2050 (and non-food demand for agricultural commodities, such as for biofuels, is also increasing).¹⁷ On the supply side, the world is losing 23 hectares of arable land worldwide every minute.¹⁸ One academic study has shown that fully one third of all arable land was lost between 1975 and 2015.¹⁹ Simultaneously, warming temperatures, changing precipitation patterns, more frequent extreme weather events and pest and disease infestations are impacting agricultural productivity.²⁰ Up to 25% of crop yields may be at risk.²¹ Increased atmospheric CO2 levels can also reduce crops' nutritional value.²² Water scarcity poses an additional threat. Agriculture uses on the order of 70% of all freshwater abstracted worldwide,²³ and research by McKinsey & Company projects that the world faces a 40% gap between water supply and demand by 2030.²⁴ Together, these demographic, economic, and environmental forces will push commodity prices up.

Expectations are mounting—from consumers, regulators, and investors

Second, public expectations of companies to operate more sustainably are mounting, with the younger generations, especially, making consumption and employment choices that line up with their social and environmental values. For example, a global survey of nearly 30,000 consumers by Accenture Strategy found that 62% want companies to take a stand on issues like sustainability, transparency, and fair employment practices, and more than half take action when they are disappointed in a company's words or actions—either complaining or withholding their business (17% permanently).²⁵ However, while consumer intention is real, corporate executives also note that consumer actions at the point of sale still value quality and price more highly than sustainability, making it important for companies to deliver sustainable products at pricing and quality parity with other options. A Boston Consulting Group (BCG) study found that millennials are more likely than other generations to integrate the social issues they care about into their daily lives.²⁶ In a Cone Communications survey of US millennials in 2016, 76% said they consider a company's social and environmental commitments when deciding where to work (vs. 58% U.S. average) and 75% said they would take a pay cut to work for a responsible company (vs. 55% U.S. average).²⁷ By 2025, millennials will make up 75% of the US workforce.²⁸

“Trust drives loyalty, loyalty drives value. If you have a supplier that can give you what consumers want, and you can build brand equity around that, you’ve de-commoditized that commodity.”

- Sustainability executive, multinational consumer goods company

DEMAND FOR FOOD IS INCREASING

AS GLOBAL SUPPLY IS REACHING LIMITS

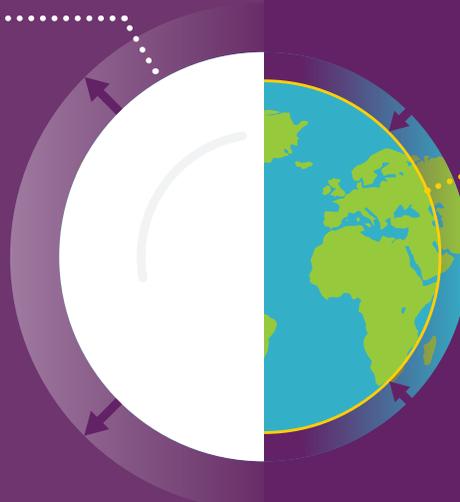
50%
INCREASE
BY 2050

UP TO **25%** OF CROP YIELDS
MAY BE AT RISK
DUE TO CLIMATE
CHANGE

2050
GLOBAL
POPULATION
PROJECTED
TO REACH



9.7 BILLION



Spending
projected
to rise

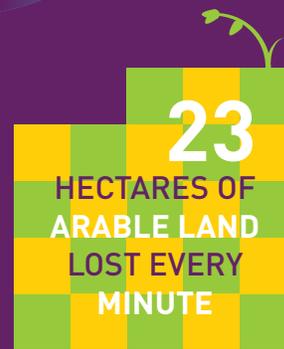
\$35
TRILLION

2016

\$64
TRILLION

2030

GROWTH OF THE
GLOBAL MIDDLE CLASS



40% GAP

BETWEEN
WATER SUPPLY
AND DEMAND
BY 2030

EXPECTATIONS OF COMPANIES ARE MOUNTING

CONSUMERS



62%

want companies
to take a stand on
sustainability,
transparency, and
fair employment
practices



Over

HALF

take action when
disappointed in a
company's words
or actions

REGULATORS

Rising requirements on
**HUMAN RIGHTS, INCOME,
ENVIRONMENTAL IMPACT, SAFETY
and TRACEABILITY**

\$400 PER
TON

"LIVING INCOME"
PREMIUM
on cocoa in
**GHANA and
CÔTE D'IVOIRE**



INVESTORS

SOCIAL IMPACT ISSUES affect
VALUATIONS and **MARGINS**

Consumer packaged goods industry



4.8

PERCENTAGE
POINTS HIGHER

for top performers in socially
responsible sourcing

TECHNOLOGY IS MAKING SUPPLY CHAIN INFORMATION INCREASINGLY AVAILABLE

Sources indicated in
"Background Paper:
Disrupting Commodities."

*Traceability helps make much of what is currently
'invisible' within our food systems 'visible', making it
possible to calculate the 'true cost of food'.*

In US market research, Nielsen found that sales of chocolate and coffee with sustainability claims grew faster than for the category overall. For “sustainable” chocolate, sales growth was 16% compared to 5%; for “sustainable” coffee, it was 1% compared to -1%.²⁹

Third, while 76% of participants in Edelman’s 2019 Trust Barometer say that CEOs should take the lead on change rather than waiting for government to impose it,³⁰ regulation is already starting to make public expectations enforceable. This trend is particularly pronounced in the area of human rights, where poverty is a root cause of issues like child labor in agriculture and other industry sectors. Australia, France, Germany, the United Kingdom and the United States have all adopted human rights disclosure and due diligence laws that apply to companies’ agricultural supply chains. More such laws are expected, with 33 countries implementing, or in the process of developing, National Action Plans on Business and Human Rights.³¹ Shipments of goods suspected of being produced using forced labor can already be stopped at the border in the United States.³² Some producing and consuming countries are considering targeting poverty directly through legislation designed to bring smallholder farmers’ incomes up past the poverty line—as the governments of Ghana and Côte d’Ivoire have already done in implementing a \$400 per ton “living income differential” on cocoa.³³ Food quality and safety regulation as well as traceability requirements are also on the rise.

Fourth, mainstream investors are increasingly aware of the links between financial performance and environmental, social, and governance (ESG) issues, and they are factoring these issues into their decision-making. There is a growing body of research linking ESG performance and long-term shareholder return. To take just one example, a quantitative analysis of

more than 300 companies by the Boston Consulting Group found that companies’ performance on relevant social impact issues had statistically significant effects on their valuations and margins. For example, in the consumer packaged goods industry, gross margins were 4.8 percentage points higher for top performers in socially responsible sourcing.³⁴ Driven by findings like these, 58% of global asset owners are either implementing or evaluating ESG considerations in their investment strategies, according to a 2019 global survey by FTSE Russell.³⁵ BlackRock CEO Larry Fink has famously warned companies that “they have been too focused on quarterly results” and that “to prosper over time, every company must not only deliver financial performance, but also show how it makes a positive contribution to society.”³⁶ Institutional investors have been particularly active. Because they invest for the long term and have reached a size where they can no longer diversify away the risks related to sustainability issues, they are reaching out to corporate boards directly to demand action to address these risks. While most emphasis has been on the environment, human rights, and business ethics, poverty is slowly emerging as a fundamental issue and the likely root cause of many others. Many companies are not aware of these investment trends: according to a survey by Bank of America Merrill Lynch cited in a recent Harvard Business Review article, “US executives underestimated the percentage of their company’s shares held by firms employing sustainable investing strategies. The average estimate was 5%; the actual percentage is more like 25%.”³⁷

Technology is making information about corporate supply chains increasingly available to companies and their stakeholders

Finally, new technologies are increasing traceability and transparency, making information about supply chains and their social and environmental impacts more widely available to companies, consumers, regulators, and investors. These technologies include mobile phones and other mobile Internet access devices, drones, and Internet-enabled sensors and scanners that enable companies along the supply chain to track a commodity’s progress to market—in some cases monitoring its safety and freshness along the way. Blockchain is poised to provide an immutable record of each step in the journey, increasing transparency while promoting quality, efficiency, and value creation.³⁸ According to the World Economic Forum, “Traceability helps make much of what is currently ‘invisible’ within our food systems ‘visible.’ It could potentially facilitate comprehensive tracking

of the environmental, economic, health and social consequences of different agricultural production processes, even making it possible to calculate the ‘true cost of food.’”³⁹ This information, in turn, would help stakeholders hold companies to account for their commitments—and potentially fuel heightened demand for even more radical change.

“We are in a transparency race. We either find out where all of our materials come from, and under what conditions they are produced, and find ways to innovate and improve—or someone else will find out and publicize the issues.”

- Procurement executive, multinational food company

These global trends are amplifying risks that procurement executives are typically charged with managing.

These risks include:

- **Security of supply:** Risk to security of supply increases as climate change, water shortages, and other environmental issues reduce productivity; as competition for supply increases; and as smallholder farmers, unable to achieve standards of living that meet their aspirations, shift to other crops or move out of farming entirely.
- **Cost:** There will be upward price pressure and price volatility of smallholder-grown commodities as populations grow, incomes rise, and demand grows unless there is equal growth in supply—a scenario that climate change, water scarcity, soil degradation, and limited access to finance, inputs and training

all mitigate against. At the same time, procurement executives worry about the cost of implementing new models that account for the social and environmental externalities that global companies are now expected to manage.

- **Reputation:** Corporate reputations hang in the balance as traceability and transparency expose conditions in farming communities that are increasingly at odds with consumer, regulator, and investor expectations—and with companies’ own sustainability commitments.
- **Compliance:** Finally, global companies must stay on top of an evolving regulatory environment and ensure they are taking the steps needed to comply with new regulations and guidelines to mitigate legal risks.

BOX 2: Procurement’s role

The corporate procurement function manages supplier relationships to ensure the supply of key agricultural ingredients with the right combination of cost, quality, and other attributes necessary to fulfill current and future consumer demand. The procurement executives interviewed for this paper reported having these key performance indicators (KPIs), in roughly the following priority order:

- Food safety
- Reliability and quality of supply
- Cost
- Reputation
- Product differentiation and innovation

However, procurement executives feel constrained in their ability to manage these risks due to marketing, product development, and other business decisions; short-term pressures; separated sustainability and procurement functions; and staff changes.

While procurement is the corporate function with the most direct contact with—and leverage over—supply chain stakeholders, procurement does not operate independently. Rather, it responds to decisions made by product development, marketing, and research and development (R&D) teams. Procurement is not always part of the decision-making process, which means that these decisions are often made without understanding the ramifications for the far end of the supply chain, and they can exacerbate key business risks.

Moreover, these business choices are often made with a short-term mindset. While institutional investors are increasingly demanding credible sustainability strategies from corporate boards, most of the analysts tracking and determining corporate valuations still focus on short-term performance. This puts pressure on CEOs to focus on short-term performance as well. This pressure cascades throughout the company, forcing business units to prioritize managing the cost of goods sold rather than the cost of value generated for the company over both the short and long term. Most procurement executives' performance metrics focus on minimizing cost as long as short- to medium-term supplies meeting basic safety and quality specifications are ensured.

“We’re at a pause because we have the sustainability teams saying there’s a problem, but the procurement teams are saying we have a cost optimization goal.”

- Procurement executive, coffee trading company

In addition to lacking the incentives, procurement executives can also lack the capabilities, skills, or knowledge of the farming conditions within the sourcing regions that are needed to envision and activate more sustainable sourcing approaches—approaches that would deliver better results for their businesses and for smallholders. These skills can often be found in sustainability teams, but while some companies have integrated their sustainability and procurement functions to varying degrees, many sustainability teams are separate units with weak links to decision-makers. The sustainability function is not always considered a part of core business operations.

Finally, frequent management and staff changes in companies, including both the sustainability and procurement departments, make it hard to sustain initiatives that focus on smallholder farmer incomes and other sustainability issues. These initiatives have been highly dependent on individuals with the passion and the expertise to develop and execute them. When those individuals move on, the drive, knowledge, and relationships needed to stay the course are often lost. Supply chain partners' trust is eroded when new staff don't honor the commitments or intentions of their predecessors, disincentivizing them to invest in more sustainable practices.

As a result of these constraints, most procurement executives default to traditional procurement practices designed to maximize short-term profitability.

These traditional procurement practices are often used alongside approaches like certification and corporate social responsibility (such as building schools, clinics, and boreholes), which are intended to help smallholders at modest expense to the company.

Traditional procurement practices create business value when measured over a period of months, perhaps up to a year. But whether they create business value in the medium to long term, however, is now being questioned.⁴⁰ Research is also calling the effectiveness of parallel strategies like

certification and CSR into question. They are difficult to scale, for example, and because investments like schools, clinics, and boreholes do not address the root causes of farmer poverty, they often turn into sunk costs.

As a result, new approaches have begun to emerge that are designed to create shared value—for companies and for smallholders. These approaches, identified through interviews with procurement executives, are listed in Table 1 and described below.

TABLE 1: The current state of practice in the procurement of smallholder-grown commodities

TRADITIONAL PRACTICES THAT MAY MAXIMIZE SHORT-TERM PROFITABILITY	EMERGING PRACTICES THAT MAY BUILD LONGER-TERM SHARED VALUE
Spot market purchasing	Longer-term contracts
Futures contracting	Supply chain simplification
Electronic tendering	Supplier relationship development
Short-term contracts	Farmer organization strengthening
Extended payment terms	Standards and certification
	Shorter payment terms
	Cost-plus pricing
	Cleansheeting
	Sophisticated quality grading
	Strategic corporate philanthropy

TABLE 2: Traditional approaches that may maximize short-term profitability

Approach	Definition	Benefit and risk to buyers	Benefit and risk to smallholders
Spot market purchasing	Buyer and seller immediately complete their transaction at current market prices.	Spot market purchasing allows buyers to secure the lowest possible cost by maximizing competition among sellers. The risk, however, is that the origin or method of procurement is unknown, exposing the buyer to compliance or ethical issues and disregarding long-term surety of supply.	Because farmers must make the decision to plant far in advance, they run the risk that spot market prices will decrease by the time their crops are ready for the market. It is worth noting that women farmers and poorly organized farmers often sell primarily on the spot market.
Futures contracting	A strategy that buyers use to protect themselves against rising prices. The seller agrees to deliver the buyer a fixed volume at a fixed price on a specified date in the future.	Buyers typically engage in futures contracting when they believe prices will rise in the future; if the market price at the time of sale is higher than the pre-agreed price, the strategy has worked and the buyer saves money but faces the risk that farmers will break their contracts and sell in the spot market. If the spot market price is lower, the buyer loses money.	Futures contracts offer farmers a secure market at a certain price. If the market price at the time of sale is lower than the pre-agreed price, farmers benefit; but if the market price is higher, farmers lose out. Smallholder farmers are typically unable to hedge themselves.
Electronic tendering	The entire procurement process is completed online, from advertising the requirement to placing the contract.	Electronic tendering increases efficiency. In addition, when real-time electronic bidding is permitting, prices tend to decline as suppliers compete with one another, to an extent not normally attainable using traditional bidding processes.	The increased competition that electronic tendering makes possible puts downward pressure on the prices that smallholder farmers receive.
Short-term contracts	Fixed-price agreements for periods as short as a few days or a single harvest.	Short-term contracts allow buyers to obtain what they need now with the freedom to continue to seek the lowest price in the future.	Short-term contracts do not provide farmers with the visibility they need to invest for the long term such as adapting to climate change, reducing deforestation, managing soil health and improving quality, and they impede access to finance. ⁴¹
Extended payment terms	Extended payment terms allow buyers to pay within a specified number of days after a delivery is made. For example, one leading global coffee buyer's terms range up to 300 days. ⁴²	Extended payment terms are a form of credit that suppliers offer to buyers. However, they limit the pool of potential suppliers to those with sufficient working capital to comply.	Extended payment terms prevent smallholder farmers, who have limited working capital and access to finance, from contracting with buyers directly. Only the largest traders with sufficient working capital can compete for a buyer's business (and extended payment terms leave those traders with less to invest in supporting smallholder farmers).

TABLE 3: Emerging approaches that may build longer-term shared value

Approach	Definition	Benefit and risk to buyers	Benefit and risk to smallholders
Longer-term contracts	Contracts that typically last for more than one year—three, five, even 10 years. They include minimum quantity and quality specifications and can include other criteria, for example related to sustainability. They also include a price finding mechanism for future transactions (such as cost-plus, described below, or average spot market price at the time of sale). ⁴³	Long-term contracts reduce price volatility and allow buyers to work together with suppliers toward longer term sustainability goals. Long-term contracts reduce transaction costs and help secure supply, ensure quality and on-time delivery. According to WWF research, they appear to work best as part of a portfolio approach, in which a percentage of supply is secured using long-term contracts and a percentage is purchased using shorter-term approaches. ⁴⁴	Long-term contracts reduce price volatility for smallholders as well as buyers. They help smallholders gain access to credit and give them the visibility over time that they need to invest, improve productivity and quality, and increase their incomes.
Supply chain consolidation and simplification	Supply chains can be consolidated and simplified by reducing the number of suppliers a company sources from and by reducing the number of tiers in the supply chain, which takes out intermediaries that are all trying to capture a share of the value of a commodity.	Supply chain consolidation and simplification increase the value available to capture. However, intermediaries often provide important logistics, storage, and sometimes even value addition services that buyers (or farmers) would have to manage effectively on their own if those intermediaries went away.	Supply chain simplification increases the value available to capture, which can benefit smallholders as well as buyers. However, where smallholders are unorganized, there's a significant risk that these cost savings will accrue to the buyers rather than to the farmers.
Supplier relationship development	Working jointly with suppliers to reduce costs and inefficiencies, develop sustainability strategies, and tackle other constraints facing smallholders through technical assistance on good agricultural practices.	Supplier relationship development builds understanding and trust among supply chain partners (buyers, traders, farmers, processors, input supply companies, and banks), reducing the risk of investing in approaches that create longer-term shared value. Buyers must choose carefully to ensure that they invest in suppliers who perform well on quality, reliability, cost and sustainability issues.	Greater investment into improving farming practices, rural finance, and supply chain efficiency can significantly improve smallholder productivity and incomes. However, farmers must ensure they do not become overly dependent on a small number of buyers in exchange for this assistance.

TABLE 3: Emerging approaches that may build longer-term shared value (continued)

Approach	Definition	Benefit and risk to buyers	Benefit and risk to smallholders
Farmer organization strengthening	Strengthening farmer cooperatives' management expertise and finances.	Stronger farmer organizations can reduce transaction costs for buyers, ensure greater quality control, and disseminate benefits to farmers. The risk to buyers is that strong farmer organizations can have more power in price negotiations or hold up supply if price negotiations break down.	Farmers can benefit from better organization by strengthening their bargaining power in relation to buyers, developing value added services such as primary processing, packaging, and logistics, and receiving services such as mechanization, finance, and training more easily. The risk to farmers is weak or corrupt organization management.
Standards and certification	Requirements that buyers impose to try to ensure the safety, quality, and sustainability of the materials they're buying, along with other technical specifications. Standards can be developed by the company or by a credible third party, often through multi-stakeholder consultation. In the case of third-party standards, auditing for compliance may result in certification.	Standards make buyers' aspirations and intentions clear and can help protect corporate reputation to an extent. But compliance with social and environmental standards can be difficult to achieve and to verify. Serious issues have been found even on certified farms.	Standards and certification can provide guidance on issues, but interviewees consider them insufficient for impact at scale given their cost, environmental focus, and appeal to a niche consumer. Implementing standards and achieving certification take time, technical expertise, and investment. Farmers without the means to come into compliance risk being shut out of corporate supply chains. At the same time, research suggests that farmers who have achieved certification have reaped limited benefits in terms of income. ⁴⁵
Shorter payment terms	Shorter payment cycles by end buyers allow intermediate suppliers to also provide shorter payment terms to smallholder farmers	Shorter payment cycles may reduce the end buyer's interest earnings and increase working capital needs. This, however, allows intermediaries such as processors and traders to pay farmers faster for greater farmer loyalty and first access to the commodity.	Shorter payment terms allow for smallholders and farmer cooperatives with minimal initial working capital to cover their costs until they develop needed technical and financial capacity to enter a buyer's supply chain and handle longer payment terms.

“Certification is like the railing on a staircase. It may help you get to the next level, but it’s not a foundation for the new way to go.”

- Executive Director of a major African agribusiness development initiative

TABLE 3: Emerging approaches that may build longer-term shared value (continued)

Approach	Definition	Benefit and risk to buyers	Benefit and risk to smallholders
Cost-plus pricing	Buyers pay a minimum price linked to the cost of production along with a price premium for meeting quality and/or sustainability standards that ensure a decent income for the farming household.	Cost-plus pricing reduces volatility in the cost of goods sold. However, buyers do forego the opportunity to buy at a lower price when the world market price dips below the cost-plus price, and they also have to manage the risk that farmers may break their contracts and sell to other parties when the world price is higher.	Cost-plus pricing guarantees that farmers recoup their expenses and earn a specified amount of profit through a price premium, essentially eliminating their price risk. However, variations in the cost of production across origins can limit the competitiveness of some origins, unless there is a unique attribute, such as flavor, that makes it worthwhile for a buyer to pay a higher price (as in the case in specialty coffee, for example).
Supply chain efficiency improvement (“cleansheeting”)	Cost and value added are clarified at each stage of the value chain in order to identify opportunities to improve efficiency and take out unnecessary costs.	Efficiency gains create value that can be captured by the company; however, certain efficiency gains such as minimizing inventory or changing logistics providers can also create increased supply risks for companies.	The value of efficiency gains can be shared by smallholder farmers as well as buyers and other parties in the chain. However, there is a risk that buyers—with greater power in the relationship—could capture all of the identified value themselves.
Sophisticated quality grading	Offering farmers a premium for higher quality, differentiated produce valued by end buyers. This is commonplace in coffee but not in other commodities such as cocoa.	Sophisticated quality grading allows companies to set prices that capture consumers’ highest willingness to pay. Some consumers are also willing to pay a premium for special varieties and origins, thereby “de-commoditizing” the commodity.	Sophisticated quality grading creates additional value that is shared with smallholder farmers in the form of price premiums to incentivize the production of unique varieties or high quality.
Strategic corporate philanthropy	Strategic use of corporate philanthropic funds to build smallholder farmers’ capacity to organize into businesses and participate in supply chains they cannot participate in today, for food safety, quality, financial, or logistical reasons. Technical assistance is provided to the farmers and/or farmer business organizations (“FBOs”) to help them eventually become suppliers to the business on purely commercial terms..	Farmer organization development promotes long-term security of supply. Compliance with laws against “self-dealing,” the use of tax-free corporate philanthropic funds to benefit the business generating those funds, must be carefully managed, and the technical support must ensure that the farmers diversify their revenue streams and customer base so as not to become dependent on or only benefit the corporation providing the philanthropic support.	Smallholders benefit from membership in strong farmer organizations where services such as training, price negotiation, access to finance, value addition, and logistics are offered. Technical support must ensure that smallholder farmers diversify their revenue streams and customer base so as not to become dependent on (or only benefit) the corporation providing the philanthropic support.

Which of these tools a buyer can use, and to what effect, depends on a number of factors affecting its visibility and leverage in the supply chain.

These factors include:

- **The volume of a commodity sourced.** Very large buyers will find it more difficult to pick and choose which farmers to source from, which may make transparency, traceability, and deeper supplier relationships through to farmers more challenging relative to smaller buyers which can focus on one origin or even one farmer group. At the same time, large buyers have more leverage than smaller buyers, which can be a strong advantage.
- **The number of intermediaries between the farmer and the company.** The more intermediaries, the harder it is to trace where a commodity comes from, who's producing it, and under what conditions. Buyers that are relatively far removed from smallholders must rely on intermediaries to understand and address the issues that smallholders face. Such buyers might choose to consolidate the number of direct suppliers they work with in order to develop close, trusted relationships that offer the incentives and support they need to work on farmer incomes. Buyers that work relatively directly with smallholders, on the other hand, can more easily use cost-plus pricing, since they will have access to more reliable information on farmers' production costs and the prices that farmers actually receive.
- **The degree of transformation of a commodity before it arrives at the buyer.** Cotton, for example, must be ginned, spun, and manufactured into cloth by three completely distinct entities, sometimes located in different parts of the world, before it is purchased by a large, branded clothing manufacturer in yet another part of the world. This reduces the opportunity that a manufacturer might have to reduce the number of tiers in its supply chain or to gain visibility to the cotton farmer, compared for example to a coffee roaster buying beans directly from a farmer cooperative.
- **Quality differentiation.** For commodities like cotton, where there is little variation in variety and quality between origins, buyers can easily shift procurement from one country to another to minimize costs, and there is limited incentive to engage for example in long-term contracts. Arabica coffee buyers looking for unique flavor profiles for their blends, however, require much more management of their supply chains to ensure reliable and long-lasting supply of specific flavor profiles from particular regions. This, in turn, provides more incentive to develop closer relationships with producers. Of course, specialty coffee roasters can also pay more.
- **Other crop-specific factors.** For example, tree crops such as coffee and cocoa require farmers to continue producing regardless of year-on-year price fluctuations. Long-term contracts will be much more appealing to these farmers than to cotton farmers, for instance, who can decide each year whether to plant an entirely different crop based on prices and buyer relationships. Another crop-specific factor is the number of harvests per year.

“One could argue the politics, but if we're honest, the price paid for these commodities doesn't reflect the work the farmers put in. We need to tackle the elephant in the room: how are we fairly distributing value along the supply chain? We can look at productivity and crop diversification, but we can't get away from looking at price.”

- Sustainability executive, multinational food and beverage company

Competitive pressures and systemic barriers can limit the effectiveness of procurement practices in addressing smallholder farmer poverty—and there has been a proliferation of multi-stakeholder platforms designed to tackle these pressures and barriers.

Research currently underway for the Farmer Income Lab has mapped more than 20 such platforms. The most successful among them have achieved results for smallholders and for participating companies. But for many platforms, there has been little evidence to suggest whether the platform is achieving its stated objectives or driving step changes in farmer income. Platforms tend to lack clear theories of change and processes for measuring their effectiveness. Best practice in this area is still being developed.⁴⁶

Our research into the current state of procurement practice suggests that the time is right for a conversation about how global businesses can disrupt the way smallholder-produced commodities are bought and sold in order to reduce farmer poverty in global supply chains—and that procurement has a strategic role to play.

A confluence of global trends—including tension between supply and demand for food, mounting expectations from consumers, regulators, and investors, and technological innovation that is heightening transparency—are making sustainability issues like farmer income more important for procurement executives. Procurement executives feel constrained in their ability to tackle those issues effectively, and practices designed to maximize short-term profitability still dominate. But innovative new approaches designed to create longer-term shared value for both companies and smallholder farmers have begun to emerge. To build the businesses we need today for the future we want tomorrow, where companies, markets, and farming families all thrive, we need to envision that future—drawing upon the innovation and insight of a wide variety of actors across sectors. Then, and only then, can we design to bring that future into being.

ENDNOTES

1. Lowder, Sarah K., Jakob Scoet, and Terri Raney. 2016. "The Number, Size, and Distribution of Farms, Smallholder Farms, and Family Farms Worldwide." *World Development* 87, pages 16-29. Online at <https://doi.org/10.1016/j.worlddev.2015.10.041>. Also see Food and Agriculture Organization of the United Nations (FAO). No date. "Family Farming Knowledge Platform." Online at <http://www.fao.org/family-farming/background/en/>
2. Lowder et al 2016.
3. Wessel, Marius and P.M. Foluke Quist-Wessel. 2015. Cocoa production in West Africa, a review and analysis of recent developments. *NJAS-Wageningen Journal of Life Sciences* 74-75. Online at <https://www.sciencedirect.com/science/article/pii/S1573521415000160>
4. Financial Times. 2014. "African Farming: Initiatives about to increase cocoa yields." Online at <https://www.ft.com/content/8218cfbc-5dc8-11e3-95bd-00144feabdc0>
5. United Nations Conference on Trade and Development, cited in Hillocks, R.J. 2014. "Addressing the yield gap in Sub-Saharan Africa." *Outlook on Agriculture* 43:2. Online at <https://pdfs.semanticscholar.org/4663/6b538ac4d992e1db8bf452dc8ac3c577fe59.pdf>
6. Shapiro, Howard-Yana. 2018. "Game over for silent killer in Africa's food?" *African Business Magazine*, January 18. Online at <https://africanbusinessmagazine.com/sectors/development/game-silent-killer-africas-food/>.
7. Cited in FAO, UNEP, UNDP. 2008. Framework Document: UN Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (UN-REDD). Online at <https://unredd.net/documents/foundation-documents-88/programme-governance-2008-2015/4-un-redd-programme-framework-document-20-june-2008-4.html>.
8. FAO. 2018. "Child labor in agriculture is on the rise." Online at <http://www.fao.org/rural-employment/resources/detail/en/c/1141500/>
9. FAO. 2017. "Ending child labor: The decisive role of agricultural stakeholders." Online at <http://www.fao.org/3/a-i8177e.pdf>
10. Farmer Income Lab. 2019. "Race to One: Mobilizing Business Action on SDG 1." Pre-read for an event held on September 26 in New York, New York.
11. Food and Agriculture Organization of the United Nations (FAO). 2015. "The economic lives of smallholder farmers: an analysis based on household data from nine countries." Online at <http://www.fao.org/3/a-i5251e.pdf>.
12. Cited in World Bank. 2016. "A Year in the Lives of Smallholder Farmers." Online at <https://www.worldbank.org/en/news/feature/2016/02/25/a-year-in-the-lives-of-smallholder-farming-families>.
13. Oxfam. 2018. "A Living Income for Small-Scale Farmers: Tackling Unequal Risks and Market Power." Online at <https://oxfamilibrary.openrepository.com/bitstream/handle/10546/620596/dp-living-income-smallscale-farmers-151118-en.pdf;jsessionid=2F1AF26FF0479D8D5BB-66DA4CAB248C9?sequence=1>
14. Cited in World Bank. 2016. "A Year in the Lives of Smallholder Farmers." Online at <https://www.worldbank.org/en/news/feature/2016/02/25/a-year-in-the-lives-of-smallholder-farming-families>.
15. United Nations Department of Economic and Social Affairs. 2019. "World Population Prospects 2019: Highlights." Online at <https://population.un.org/wpp/>.
16. Kharas, Homi. 2017. "The unprecedented expansion of the global middle class." Online at <https://www.brookings.edu/research/the-unprecedented-expansion-of-the-global-middle-class-2/>.
17. World Resources Institute (WRI). 2019. "World Resources Report: Creating a Sustainable Food Future." Online at https://wrr-food.wri.org/sites/default/files/2019-07/WRR_Food_Full_Report_0.pdf.
18. United Nations Environment Programme (UNEP). No date. "#FridayFact." Online at <https://www.unenvironment.org/news-and-stories/story/fridayfact-every-minute-we-lose-23-hectares-arable-land-worldwide-drought>
19. Milman, Oliver. 2015. "Earth has lost a third of arable land in past 40 years, scientists say." *The Guardian*. Online at <https://www.theguardian.com/environment/2015/dec/02/arable-land-soil-food-security-shortage>.
20. Intergovernmental Panel on Climate Change (IPCC). 2019. "Special Report on Climate Change and Land: Summary for Policymakers." Online at https://www.ipcc.ch/site/assets/uploads/2019/08/4.-SPM_Approved_Microsite_FINAL.pdf.
21. IPCC cited in FAO. No date. "Climate change and your food: Ten facts." Online at <http://www.fao.org/news/story/en/item/356770/icode/>.
22. IPCC 2019.
23. FAO. 2017. "Water for Sustainable Food and Agriculture." Online at <http://www.fao.org/3/a-i7959e.pdf>.
24. 2030 Water Resources Group. 2009. "Charting our Water Future." Online at <http://www.2030wrg.org/wp-content/uploads/2014/07/Charting-Our-Water-Future-Final.pdf>.
25. Accenture Strategy. 2018. "To affinity and beyond: From me to we, the rise of the purpose-led brand." Online at https://www.accenture.com/_acnmedia/thought-leadership-assets/pdf/accenture-competitiveagility-gcpr-pov.pdf.
26. The Boston Consulting Group (BCG). 2012. "The Millennial Consumer: Debunking Stereotypes." Online at <https://www.bcg.com/documents/file103894.pdf>
27. Cone Communications. 2016. "Cone Communications 2016 Millennial Employee Engagement Study." Online at https://static1.squarespace.com/static/56b4a7472b8dde3df5b7013f/t/5819e8b303596e3016ca0d9c/1478092981243/2016+Cone+Communications+Millennial+Employee+Engagement+Study_Press+Release+and+Fact+Sheet.pdf

28. Winograd, Morley and Michael Hais. 2014. "How Millennials could Upend Wall Street and Corporate America." Online at <https://www.brookings.edu/wp-content/uploads/2016/06/Brookings-Winogradfinal.pdf>.
29. Nielsen. 2018. "What's sustainability got to do with it? Linking sustainability claims to sales." Online at <https://www.nielsen.com/us/en/insights/report/2018/whats-sustainability-got-to-do-with-it/#>
30. Edelman. 2019. "Edelman 2019 Trust Barometer Global Report." Online at <https://www.edelman.com/sites/g/files/aatuss191/files/2019-03/2019-Edelman-Trust-Barometer-Global-Report.pdf>.
31. World Business Council for Sustainable Development. 2019. "CEO Guide to Human Rights." Online at <https://www.wbcsd.org/Programs/People/Social-Impact/Human-Rights/Resources/CEO-Guide-to-Human-Rights>
32. As per Section 307 of the Tariff Act of 1930. See <https://www.cbp.gov/trade/programs-administration/forced-labor>.
33. AfricaNews. 2019. "Ivory Coast, Ghana step up efforts to reform cocoa industry, set \$400 premium." July 11. Online at <https://www.africanews.com/2019/07/11/ivory-coast-ghana-step-up-efforts-to-reform-cocoa-industry-set-400-premium/>.
34. Beal, Douglas et al. 2017. "Total Societal Impact: A New Lens for Strategy." The Boston Consulting Group. Online at <https://www.bcg.com/Images/BCG-Total-Societal-Impact-Oct-2017-R-tcm30-174019.pdf>.
35. FTSE Russell. 2019. "Smart Beta: 2019 Global Asset Owner Survey." Online at <https://www.ftserussell.com/smart-beta-survey-infographic-2019>
36. Fink, Larry. 2018. "Larry Fink's 2018 Letter to CEOs: A Sense of Purpose." Online at <https://www.blackrock.com/corporate/investor-relations/2018-larry-fink-ceo-letter>.
37. Eccles, Robert G. and Svetlana Klimenko. 2019. "The Investor Revolution." *Harvard Business Review* May-June. Online at <https://hbr.org/2019/05/the-investor-revolution>.
38. FAO. 2019. "E-Agriculture in Action: Blockchain for Agriculture. Opportunities and Challenges." Online at <http://www.fao.org/3/CA2906EN/ca2906en.pdf>.
39. World Economic Forum. 2019. "Innovation with a Purpose: Improving Traceability in Food Value Chains through Technology Innovations." Online at http://www3.weforum.org/docs/WEF_Traceability_in_food_value_chains_Digital.pdf.
40. Clay, Jason. 2018. "How Long-Term Contracts can Help Drive More Sustainable Agriculture." Online at <https://medium.com/the-markets-institute/long-term-contracts-c0ccc09dbbc9>
41. Clay 2018.
42. Panhuysen, S. and Pierrot, J. 2018. "Coffee Barometer 2018." Online at <https://www.hivos.org/assets/2018/06/Coffee-Barometer-2018.pdf>.
43. Clay 2018.
44. Clay 2018.
45. Bouwman, Emily. 2018. "Income intervention quick scan: Certification." Farmer Income Lab Intervention Quick Scan by Wageningen University and Research. Online at <http://edepot.wur.nl/460668>
46. Forthcoming research funded by the Rockefeller Foundation outlines various gaps when it comes to measuring the effectiveness of multi-stakeholder platforms, and provides guidance on how to it better. For an overview, please see <http://msplatforms.org/>.