The Council on Smallholder Agricultural Finance provides a forum for members to share learning and develop industry standards that accelerate market growth, influence responsible lending practices, and improve social and environmental impact.

We would like to thank MIX for leading the collection and analysis of our data, and the Mastercard Foundation and Small Foundation for their generous support of this report and the broader research on which it is based.
**Mission**

- Facilitate market entry and increase lending to agricultural businesses in the missing middle.
- Grow the agriculture finance sector to support the livelihoods of the world’s 450 million small-scale farmers.
- Promote responsible lending principles, including social, environmental, and governance standards, among all financial institutions serving this market.

**Vision**

CSAF envisions a thriving, sustainable, and transparent financial market that generates long-term economic, social, and environmental benefits by meeting the financing needs of agricultural businesses that aggregate smallholder farmers in developing countries worldwide.
2016 At A Glance

$682M DISBURSED to 765 BUSINESSES sourcing from 2.3M FARMERS across 65 COUNTRIES

Market Growth

- In 2016, CSAF members disbursed $682M in short- and long-term credit to businesses across 65 countries. This aggregate lending represents a 9% increase compared to 2015 but is a considerable slowdown from the growth experienced in 2014.

- Regional growth rates varied significantly, with lending in sub-Saharan Africa (+44%) and Southeast Asia (+24%) growing the fastest. In South America, lending declined for the first time, dropping by 10% due to lower prices in the coffee and quinoa sectors. Members also reported an 8% decrease in lending in Central America.

- With 130 new borrowers, members now serve the financing needs of 765 businesses, up 6% from 2015. Countries with the largest net increase in borrowers include Argentina, Colombia, Indonesia, and Ivory Coast.

- In addition to providing employment opportunities in rural areas for 75,000 workers, these businesses connected 2.3 million smallholder farmers to markets, a 10% increase from 2015.

- A large and growing share of disbursements were to private companies (64%), with a decline in disbursements to farmer cooperatives and associations (32%). This trend in particular noticeable among new clients in sub-Saharan Africa and Southeast Asia.

- While average loan amounts to existing borrowers ($759K) increased at a moderate rate, lenders reported a 50% increase in average loan amounts ($948K) for new borrowers. New borrowers receiving larger loans, particularly during a sustained downward period in commodity prices, indicates that some lenders are shifting toward working with larger businesses, and we explore the implications of this on page 16.

- Coffee remains the most-financed value chain, accounting for 38% of global disbursements. Although overall lending to coffee borrowers decreased for a second year, members reported pockets of strong growth in Colombia and Indonesia.

- Outside of coffee, lending to businesses in the cashew nut and macadamia nut sectors more than doubled, reaching $82M and outpacing cocoa—which grew most notably in Ivory Coast and Ecuador—as the second-most financed crop.

Credit Quality

- Credit quality improved on a global basis, with the aggregate portfolio-at-risk greater than 30 days (PAR30) declining to 7.8%, down from 11.3% in 2015. Members also reported restructuring loans with 10% of borrowers in 2016, down from 13% the prior year.

- Businesses involved in processing and marketing perishable products, such as fruits, vegetables, and dairy, accounted for the highest risk, with PAR30 rates above 20%. Borrowers in the rice (14% PAR30), quinoa (13% PAR30), and cashew nut (10% PAR30) value chains also faced significant production, price, and market risk in 2016. While lending risk for CSAF members in the coffee sector (5.2% PAR30) is lower than the industry average, it remains above historical averages.

- Commodity price volatility as well as crop failure due to weather and plant diseases were significant factors affecting the ability of borrowers to repay loans. These underlying risk factors were often exacerbated when borrowers were undercapitalized and had limited managerial capacity.

- Despite overall credit quality improving from 2015 to 2016, several lenders still have a material volume of non-performing loans that elevated provisioning costs and led to tighter credit standards over the past two years.
Investing in agriculture is 3x more effective at reducing poverty than investing in other industries.  

FAO
Introduction

With global population projected to reach more than nine billion by 2050, demand for food expected to double over the same period, and increasingly volatile climate conditions, there are both daunting needs and compelling opportunities to increase productivity and strengthen resilience among the world’s 450 million smallholder farmers.

One of the most effective and efficient channels to reach these farmers is the small- and medium-sized enterprise (SME): the cooperatives, associations, traders, processors, and exporters that act as critical intermediaries within increasingly complex global food and agricultural supply chains. By connecting smallholder farmers to markets and providing employment to rural populations, these businesses have the potential to generate inclusive and sustainable economic growth for households, communities, and entire countries that are dependent on agriculture.

Yet these businesses struggle to access the credit they need to sustain and grow their operations. They are often locked out of the formal banking system and fall into the “missing middle” – their financing needs are too large for microfinance institutions but considered too small, too risky, or simply too geographically remote by commercial banks. The missing middle is particularly pronounced in rural areas and the agricultural sector – precisely where economic activity can have disproportionate benefits for the poor.

Today, there are a number of pioneering financial institutions dedicated to closing this financing gap and prioritizing social and environmental impact alongside financial performance. In 2014, seven lenders came together to form the Council on Smallholder Agricultural Finance (CSAF) to demonstrate this opportunity for high-impact and market-oriented investing.

Collectively, CSAF members have over 150 years of experience lending to agricultural SMEs, and we have deployed a combined $4.4 billion. We are financial institutions that believe in the power of markets and competition.

CSAF is a pre-competitive body focused on developing industry standards and best practices for lending to agricultural SMEs. We are now eleven impact-focused financial institutions that seek to create a thriving, sustainable, and transparent market to serve the needs of agricultural businesses and the farmers they reach.

Combined lending by CSAF members has increased at a compound annual rate of 25% from a base of $354M in 2013 to $682M at the end of 2016. During this time period, we have reached an additional 454 businesses that are creating economic opportunities in rural farming communities around the world.

Halfway through 2017, CSAF members continue to increase our lending, with most lenders reporting expected growth of 5% to 10% by the end of the year; the fastest growth is projected to come from Colombia, Indonesia, Uganda, and Kenya.

However, lenders and borrowers alike face a range of systemic risks and market challenges that adversely affect their operations and ability expand. As a result, growth has slowed over the past two years. Indeed, most members are embedded within larger financial institutions that have achieved consistent profits in impact sectors, such as microfinance and renewable energy. And yet our financial performance in agricultural lending ranges from barely breaking even to operating at a loss and requiring cross-subsidy from other business lines.

Our experience affirms the need for “smart subsidy,” or blending capital to increase the total flow of funding into the market, to address constraints in both the supply of appropriate capital and the addressable demand from investment-ready businesses.

The bulk of this report focuses on growth and risk trends across geographies, crops, and business types. In the final section, we draw upon our experience to make the case for smart subsidy in agriculture. We consider the ways in which subsidy can truly be “smart,” and we share a set of preliminary proposals that we will be developing in the coming months.
We do not have all the answers; far from it. We seek to engage like-minded peers and practitioners, donors, investors, and policymakers to exchange ideas and learning and forge new partnerships for growing this market to achieve its full potential.

As practitioners, one of the most immediate ways in which we can contribute to this vision is by sharing our data — leveraging thousands of loan- and borrower-level data points to demonstrate challenges as well as opportunities. In transparently sharing aggregate information, we are also committed to respecting the confidentiality of our individual borrowers’ business and financial data.

CSAF is pleased to share this third annual “State of the Sector” report, which highlights recent growth trends and notes the risks associated with agricultural finance. We also provide data-driven insights and recommendations on how investors, donors, and others can address the evolving, and still largely unmet, needs of smallholder farmers and the businesses that connect them to markets.

Ultimately, it is our hope that CSAF’s activities will encourage other financial institutions to increase lending to high-impact agricultural SMEs.
CSAF lenders support smallholder farmers by financing points of aggregation: businesses that purchase crops from hundreds or thousands of individual producers and then aggregate, process, and sell those crops to domestic or global buyers. These businesses vary in size (annual revenues range from $250K to over $20M) and structure (from farmer-owned cooperatives to private enterprises). However, all businesses purchase crops from and/or provide services to smallholder producers, and the profiles of those farmers remain fairly consistent from year to year. In 2016, the approximately 2.3 million producers reached through CSAF lending managed an average of 2.6 hectares of farmland.

In addition to providing income-generating opportunities for these farm households, the businesses that are served by CSAF members create substantial seasonal and year-round employment and function as multi-service providers, offering farmers access to finance, farm inputs, and agronomic training; many also provide non-agricultural services, such as scholarships for local youth, access to clean drinking water, or health insurance.

When well-functioning and adequately capitalized, these businesses bring tremendous benefits to rural farming communities.

**Our Borrowers**

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* $7.6B ENTERPRISE REVENUE
* 2.3M PRODUCERS
* 2.6 HECTARES AVERAGE FARM SIZE

**Figure 1: Percent of Borrowers By Region**

- Sub-Saharan Africa: 33% (253 Borrowers)
- South & East Asia: 32% (53 Borrowers)
- Central America**: 21% (160 Borrowers)
- Other*: 7% (53 Borrowers)

**Figure 2: Percent of Active Loans by Borrower Revenue**

- More than $5M: 43%
- Less than $500K: 15%
- $500K to $2M: 21%
- $2M to $5M: 21%
A Note on Methodology

The results presented in this report are based on agricultural lending activity by the nine CSAF members and two affiliates from January 1, 2016 to December 31, 2016.

Each CSAF member and affiliate (hereafter called members) provided this information to MIX, an organization that promotes financial inclusion through data and insight, under a nondisclosure agreement. Subsequent analysis was conducted by MIX using an aggregate dataset and therefore does not identify either the borrower or the lender.

To account for inconsistent data types and to improve trend analysis, MIX applied a unified adjustment methodology across both new and historical data. Therefore, readers may notice slight variations from the data published in CSAF’s previous annual reports.

We believe this methodology presents the most accurate and up-to-date picture of our constantly evolving industry. Additionally, we restrict our reporting to only active loans, which are defined as meeting at least one of the following criteria:

- a maturity date in 2016 or later;
- one or more disbursements during 2016; or
- an outstanding balance (not subject to write-off) at any point during 2016.

To complement and contextualize the data presented in this report, CSAF members participated in qualitative surveys and discussions covering trends affecting portfolio growth and credit quality in 2016 and an outlook for 2017, with insights highlighted throughout this report.
Recent Updates from CSAF

As more capital flows into this sector, we believe it is essential to draw on our collective experiences to promote supportive infrastructure from which the entire sector will benefit. Each CSAF member maintains a portfolio of loans to agricultural SMEs, and we independently pursue our respective missions to deliver financial solutions that benefit smallholder farmers, rural communities, and the natural environments on which we all depend. Yet we also recognize that our impact is linked to the success of the entire sector.

Inadequate market infrastructure and a lack of reliable information jeopardizes the profitability and commercial success of borrowers and lenders alike. For that reason, we collaborate on a pre-competitive basis to promote responsible lending and to identify efficiencies for participants throughout the value chain. CSAF accomplishments over the past year include:

- Welcomed Global Partnerships as a new member (previously an affiliate) and added two new affiliate organizations: AgDevCo and Impact Finance Fund.

- Convened all members for two general meetings to share learning and identify common challenges. We also continued to expand collaboration at the local level by convening our first Africa regional meeting in Nairobi, Kenya. CSAF colleagues in Peru now meet multiple times a year and colleagues in Central America held their first regional meeting in mid-2017.

- Adopted a set of jointly developed environmental, social, and governance (ESG) principles that apply across members’ loan portfolios. These principles guide lenders during their respective due diligence processes to determine whether a potential borrower has socially and environmentally responsible practices that are likely to generate positive impact on rural livelihoods and the environment.

- Held a three-day training in East Africa to strengthen technical expertise for 25 loan officers from across CSAF members. Training focused on identifying and mitigating ESG risks as well as facilitating peer-to-peer exchanges on challenges and innovations in conducting ESG due diligence.

- Developed tools and processes, including a standardized loan monitoring report to streamline the process for borrowers. CSAF members are now using this tool to monitor borrower performance in Latin America as well as on a pilot basis in Africa.

- Conducted an analysis across all members’ historical portfolios to gain better insights into the key reasons why some borrowers had difficulty repaying their loans and determine, in retrospect, what if anything could have been done differently (see page 27).

- Expanded partnership with MIX to harmonize key metrics and industry terminology across lenders, especially those related to portfolio performance, financial products, and commodity types. This also involved analyzing historical data to identify and improve major discrepancies among borrowers working with more than one CSAF member.
Growth Trends & Insights

During 2016, CSAF lenders disbursed $682M in credit to 765 businesses across 65 countries. From coffee cooperatives to grain processors, the businesses that received financing from CSAF members generated an estimated $7.6 billion in combined annual revenue. These businesses also connected 2.3 million smallholder producers—29% of whom are women—to domestic and international markets, paying them approximately $6 billion for their crops, in addition to providing permanent employment for 75,000 men and women in rural communities.

Lending increased by 9% but growth trends vary by region and value chain. On an aggregate basis, the topline lending figure represents a 9% yearly increase in lending and signals a continued commitment among lenders to support agricultural SMEs. As this report highlights, lending activity remains highly uneven across countries and value chains. For example, while the volume of credit disbursed to businesses in Central America declined for the second-consecutive year, lending to businesses in sub-Saharan Africa grew by 44%. Lenders also reported declining coffee-sector lending while financing for businesses in cashew and cocoa value chains increased significantly.

These regional trends—explored in the following section—vary by country and are driven by a range of factors, including macroeconomic conditions, market fundamentals, and commodity price movements. Notably, a lack of creditworthy business is among the most significant constraints to increased lending activity.

Credit quality improves but risk remains elevated. In 2016, members reported that a range of micro and macro risks continue to put agricultural SMEs at a distinct disadvantage, constraining their growth and negatively affecting their ability to repay loans.

At the end of 2016, portfolio-at-risk greater than 30 days (PAR30) across all CSAF member portfolios was 7.8%, down from 11.3% at year-end 2015. From extreme weather events and crop diseases to labor shortages and price volatility, SMEs must constantly be on the lookout for and react to unforeseen events at the farm, enterprise, industry and even country level. Notably, lenders find that the largest number of non-performing loans occurred with businesses where management capacity was limited, underscoring the need for targeted technical assistance to build capacity and resilience to external shocks.
An increase in the number of nonperforming loans has resulted in higher provisioning costs, which in turn negatively affects lenders’ cost coverage and limits the amount of capital available to invest.

**Driven in large part by growth in Africa, more than half of all borrowers are now private enterprises.** With the addition of 130 new borrowers, the 765 businesses that received financing from CSAF members represents a 6% net increase from 2015.

As in prior years, some borrowers paid down their loans, declined to renew, or had difficulty repaying, resulting in a 12% attrition rate, compared to 9% the prior year. Countries with the largest net increase in borrowers include Argentina, Colombia, Indonesia, and Ivory Coast.

CSAF members also reported a continued increase in the proportion of privately owned businesses receiving financing as compared to farmer-owned cooperatives or associations. In 2016, 56% of all borrowers were private companies, sourcing from or providing products and services to smallholder farmers.

Private businesses, which account for 65% of CSAF credit disbursed globally, are especially common within member portfolios in South & East Asia (80%) and in sub-Saharan Africa (73%) and less so in Central America (37%) and South America (45%), regions that have a stronger tradition of farmer-owned cooperatives.

Because cooperatives often distribute the majority of earnings to members as opposed to retaining surpluses to capitalize the business, access to working capital financing is especially important. However, it also means that lenders may be assuming more risks by financing borrowers that have less of an equity cushion to absorb unexpected market downturns.

**Portfolio size and growth rates vary substantially among CSAF members.** With the field of smallholder agricultural finance maturing, an increasingly robust and diverse ecosystem of actors are exploring opportunities across asset classes. CSAF members are primarily focused on providing debt, but there is wide variability in the size and makeup of member portfolios and the regions they serve. For example, one lender accounts for over one-third of the volume of credit disbursed, while others have entered the sector in the last few years and are beginning to grow their portfolios. Similarly, some lenders offer minimum loan amounts of $1M whereas others provide loans for as low as $20,000. Or, consider that ten members reported loans in Peru whereas only three members reported loans in Argentina, which is the largest market for one lender.

Given the diversity of CSAF members and their activities, growth rates also varied across lenders: five reported a slight to moderate decrease in lending volume from 2015 to 2016, four reported a slight to moderate increase, and the two members with the largest portfolios reported significant growth of more than 40%.
Trade credit remains the most frequently used form of financing. In 2016, 76% of capital disbursed from CSAF members was for trade credit.

Typically structured based on a borrower’s existing purchase orders and contracts with a known buyer, these loans accelerate cash flows from future sales. For businesses with relatively long cash conversion cycles, this funding is essential during the harvest season. This also means more stable income and more immediate liquidity for farmers, who are less likely to sell their crop to middlemen at significantly lower prices and instead become trusted suppliers to these businesses.

Lenders continue to increase the amount of long-term asset financing extended to borrowers, from 22% of year-end outstanding balance (7% of overall disbursements) in 2014 to 30% of year-end outstanding balance (13% of overall disbursements) in 2016. With loan tenors ranging from one to seven years, this financing allows businesses to invest in equipment, infrastructure, and technology at the farm and enterprise level.
Water is a precious resource throughout the entire world, but it is especially important in Kenya’s Tharaka Nithi county, a rural semi-arid region that suffers from infrequent rainfall. It is here where Sorghum Pioneer Agencies (SPA) introduced a drought-resistant variety of sorghum and is providing reliable market access for 14,000 farmers, 65% of whom are women.

Founded by Beatrice Nkatha Munyi, SPA sells sorghum purchased from smallholders to the World Food Programme as well as to several local buyers in Kenya. A sign above one of the business's sales and distribution facilities reads: “Sorghum is Money. Sorghum Pays.”

The company also sells sorghum seeds and fertilizer, often on credit, to smallholder farmers and provides regular training and technical assistance. For instance, the enterprise employs field officers who conduct extension visits and manage demonstration farms. In a recent survey conducted by Root Capital, over 90% of the farmers reported that their production increased since they started supplying to SPA. Several also reported that they earned enough income to no longer depend on food aid.

When Root Capital began financing SPA in 2015 with a general working capital loan of $230,000, the business did not have access to finance from any other lender. This is a predicament shared by many agricultural SMEs; businesses that might provide employment opportunities and raise incomes of farmers often cannot access the capital to realize their potential.

Before receiving Root Capital financing, the company was purchasing about 1,700 metric tons of sorghum from local farmers. Today, that number is closer to 4,000 metric tons. With more capital, businesses like SPA can purchase more product — and put more money in the hands of farmers.

Sorghum Pioneer Agencies received its first loan in 2015. Now, the business provides reliable market access for 14,000 sorghum farmers in Kenya’s semi-arid regions.
Loan amounts continue to increase, especially among new borrowers. An increasing share of lending activity is targeted toward businesses that require loans in the $500K to $2M and higher range. As demonstrated by figure 12, members are originating relatively fewer loans for less than $500K, and there remains scarce financing options for businesses needing even smaller loans ($50K to $250K).

Few financial institutions have designed models to cost-effectively serve this market segment at scale. However, several CSAF members actively prioritize lending to smaller earlier-stage businesses, especially those that face high obstacles to accessing capital. In 2016, 25% of active loans were for amounts below $250K.

While average loan sizes continue to increase at moderate rates, lenders reported average loan sizes for new borrowers increased by 50%, from $634K to $948K in 2016. This is the first year in which the average size of loans made to new borrowers surpassed that of existing borrowers ($759K).

Notably, the fact that new borrowers are receiving larger loans than existing borrowers, particularly during a sustained downward trend in commodity prices, indicates that some lenders are shifting toward working with larger businesses.
We hasten to add, however, that this upmarket shift in loan size by some lenders does not necessarily correspond to less impact in their lending as it might in the microfinance sector where loan size is highly correlated with poverty level of the borrower. There are two points to consider:

First, in the case of agricultural SMEs, we see less variance in farmer profile between small and large enterprises (i.e., often large enterprises are simply aggregating more farmers as opposed to farmers with larger land holdings) as we do between different countries with distinct topographies and histories of land tenure.

Second, CSAF members are committed to the principle of additionality whereby our lending is additive to what borrowers would otherwise receive from commercial lenders. But we have yet to develop a common definition and report on this metric so we cannot draw conclusions on the relative additionality of small loans versus larger ones. Additionality will be a topic of discussion at our next general meeting, and we believe it is an important issue for the broader sector.
Regional Performance

**Lending in Africa grows by nearly 50%**. In sub-Saharan Africa, where half of all lending is concentrated in the coffee, cocoa, and cashew value chains, lending grew for the third consecutive year. Credit volume in the region increased by 44% to $188M, representing the fastest-growing region and a near-tripling of credit disbursed since in 2013. Notably, only 10% of businesses in the region received loans from more than one CSAF member indicating that growth is truly expanding the market as opposed to concentrating lending within a segment of high-performing borrowers.

**South America lending declines for the first time, but there are pockets of growth.** South America accounts for the largest share of credit disbursed globally, representing 32% of total lending, with Peru alone accounting for 18% of global disbursements. However, compared to 2015, overall lending declined by 10% due in large part to decreased lending in Peru’s coffee and cocoa sectors as well as another year of decreased lending in the quinoa sector of neighboring Bolivia. Elsewhere in the region, members reported significant growth in the volume of credit disbursed, including in Argentina (soybeans), Colombia (coffee), and Ecuador (cocoa).

**Concentrated in coffee, lending in Central America declines for a second year.** In 2016, the total number of businesses reached in Central America grew slightly, from 158 to 162, but the volume of credit disbursed declined by 10% to $138M, representing the second year of decreased lending. Members attribute this decline to the prolonged period of low coffee prices and borrowers recovering from the recent outbreak of coffee leaf rust disease. Central America is home to several well-established producer cooperatives that are focused on marketing specialty coffee. For this reason, nearly 90% of lending in the region is to businesses in the coffee sector.

**Lending in South & East Asia continues to increase.** Although the newest region for many CSAF members, South & East Asia represents a significant opportunity to reach millions of smallholder farmers. In 2016, lending grew by 24% to $84M. Currently, India, Vietnam, and Indonesia account for more than two-thirds of credit disbursed in the region, and lending in each of these countries has grown at rates of 25% to 50% annually for the past three years. Cambodia, Laos, Malaysia, the Philippines, Timor-Leste, and Thailand have minimal lending, with less than $5M disbursed annually in each country. The total number of businesses served in the region has also increased significantly in recent years, reaching 55 in 2016; the vast majority of these businesses are privately owned enterprises.

**Figure 17: Annual Credit Volume and Number of Businesses Reached By Region**
**Promoting Gender Equity**

CSAF members are committed to creating opportunities for women through our lending and yet women only represent 29% of the farmers that we reach.

We must first recognize that we are working within inherently inequitable systems in terms of women’s access to and control over assets such as land and credit; disparities in education and training; and cultural norms imposing on women the triple burden of shouldering housework, childcare, and production, without recognizing the value of their contributions. In many cases, women spend just as much time or even do a greater share of the on-farm labor but their husbands or male relatives are the registered members of a cooperative. Therefore, it is the men who have voting rights in enterprise decisions and also receive payments for delivery of their crop.

We believe in women’s empowerment from the perspectives of both human rights and economic development. According to the Food and Agriculture Organization, if women had the same access to productive resources as men, they could increase yields on their farms by 20-30%. This would raise total agricultural output in developing countries by up to 4%, in turn reducing the number of people who are food insecure.

As lenders, CSAF members are limited in how we can redress these inequities. We do not create businesses and do not make our services conditional on particular quotas of women farmers or leaders, as we have seen these well-intentioned efforts go awry – but there are many things we are already doing (and more we would like to do):

- Reporting data on the number of women farmers and workers. In addition to bringing transparency to our stakeholders, the simple act of gathering this information signals to businesses that we care about their gender practices and often leads to deeper conversations with entrepreneurs and business managers.

- Beyond “counting women”, CSAF members perform due diligence to assess enterprise practices and identify gender discrimination in the business’ engagement with farmers or workers. Businesses that violate CSAF’s Environmental, Social, and Governance Principles are not eligible for loans. We also engage constructively with businesses to promote continuous improvement around areas such as worker health and safety for agro-processing companies.

- In recent years, CSAF members have proactively diversified into crops and enterprise models that are particularly impactful for women; these include wild-harvested crops such as shea butter and value-added processing for cashew nuts, macadamia nuts, and fresh fruits and vegetables – values chains in which women comprise a larger share of the work force.

- Several of the coffee enterprises that CSAF members finance obtain price premiums above Fair Trade and organic prices for coffee produced by women. The best known of these programs is Café Femenino, which purchases from women farmers across nine countries, seven in Latin America as well as Indonesia and Rwanda. Similarly, Aldea Global’s “Tierra Madre” program features coffees produced exclusively by women farmers. The premium buyers pay for the Tierra Madre brand goes directly to assisting women farmers register land titles in their own names. CSAF financing facilitates these direct trading relationships.

Of course, much more is needed to remove barriers to women’s participation and leadership in agricultural enterprises, and we are committed to partnering with borrowers and other stakeholders to explore appropriate partnership roles for CSAF members.

1. FAO 2010-2011. The State of Food and Agriculture.
**Value Chain Trends**

**Coffee**

Historically, most CSAF members started by providing working capital financing to borrowers in the specialty coffee sector, a value chain that has benefited from substantial investment by donors and the private sector in sustainable production and equitable trading relationships.

As CSAF members have expanded to serve other agricultural sectors, the coffee value chain remains a primary focus for most lenders due to its unique structure: strong market linkages, formal contracting and quality standards, and relatively transparent pricing—in addition to the crop itself being non-perishable. As such, there are opportunities to reach an even greater share of coffee producers through a variety of channels and with especially strong growth opportunities identified in the major coffee-producing countries of Colombia and Indonesia.

In 2016, CSAF members disbursed $270M to 276 coffee-sector businesses globally, down 5% from the $283M in credit provided in 2015.

With non-coffee lending growing by 20%, coffee continues to account for a smaller share of overall lending each year, narrowing to 38% in 2016, down from 55% just two years earlier. Importantly, this concentration varies by region—with coffee accounting for 88% of lending in Central America and less than 20% in sub-Saharan Africa (see figure 20).
Despite the overall contraction in coffee lending, trends are more nuanced on a country-by-country basis. For instance, as in the prior year, decreases in coffee lending were particularly acute in Peru, which accounts for a quarter of global coffee lending, but has recently faced competitive pressure from Colombia’s rapidly expanding coffee sector. The volume of credit disbursed within Peru’s coffee sector declined by 11% in 2016, with the number of borrowers remaining steady.

There was also a decline in lending to coffee businesses in Mexico and Central America, which together produce one-fifth of the world’s Arabica coffee. This region has been particularly affected by leaf rust and an inability to manage volatile coffee prices in recent years. Several CSAF borrowers across the region have struggled to maintain profitability.

In Rwanda, several borrowers suffered financial losses after the global coffee price decline in 2015 extended into the 2016 harvest season. Many cooperatives held coffee stocks with the hope that prices would rise, but were later forced to sell the coffee at lower prices. The subsequent shortfall in revenue had an adverse impact on their ability to service existing debt, and many were therefore unable to qualify for financing in 2016.

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<td>$7M</td>
<td>$6M</td>
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</tr>
<tr>
<td>Malaysia</td>
<td>$4M</td>
<td>$5M</td>
<td>$6M</td>
<td>20%</td>
</tr>
<tr>
<td>Tanzania</td>
<td>$3M</td>
<td>$7M</td>
<td>$5M</td>
<td>-29%</td>
</tr>
<tr>
<td>DRC</td>
<td>$4M</td>
<td>$4M</td>
<td>$5M</td>
<td>25%</td>
</tr>
<tr>
<td>Other</td>
<td>$18M</td>
<td>$10M</td>
<td>$8M</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$309M</td>
<td>$278M</td>
<td>$268M</td>
<td>-4%</td>
</tr>
</tbody>
</table>
Crop replanting efforts drive growth in Colombia’s coffeelands. Colombia is among the world’s best-known coffee-producing countries in the world. With 95% of producers cultivating less than five hectares of land, Colombia ranks second worldwide in annual production of Arabica coffee.

Following the successful replanting program of rust-resistant varieties led by the government, coffee production in the country has reached levels not seen since the early 1990s. In just the past five years, average yields have increased to 900 kilograms per hectare due to the application of proper agronomic practices and usage of inputs. (Compared with 250 kilograms per hectare in Tanzania)

With new trees now reaching productive age, annual output for the 2015/16 season topped 14 million 60-kilogram bags. Much of Colombia’s success can be attributed to the country’s strong coffee institutions, particularly the National Federation of Coffee Growers, which has been in existence for 90 years.

Against this backdrop, CSAF members are financing 22 businesses. Lending to the country’s coffee-sector rose 14% to $24M, which accounts for 80% of overall CSAF lending in the country.

Lending to Indonesia’s coffee sector continues to grow. As the world’s fourth-largest coffee producer, Indonesia is home to an estimated 1.5M smallholder coffee farmers, with farm sizes averaging less than one hectare compared with just under three hectares across CSAF borrowers globally.

While approximately 85% of Indonesia’s coffee production is made up of the Robusta variety, CSAF members are largely focused on serving the needs of businesses producing, processing, and exporting specialty-grade Arabica beans on the islands of Sumatra and Sulawesi.

In 2016, members reported lending $12M, up from $7M the previous year, with a similar rise in the number of coffee-sector borrowers, from 7 to 12. Members also reported Indonesia as among the countries with the greatest opportunity for growth in the years ahead.
Aldea Global is a leading association of smallholder farmers in the mountainous region of northern Nicaragua, where the majority of the country’s coffee is grown. Founded in 1992, the association facilitates access to credit, technical assistance, and commercialization services for nearly 5,000 farmers.

Before joining the association in 2009, Santos Augustín walked two hours every day to a small plot of land where he grew beans and potatoes. Aldea advised him on how to start growing coffee by providing training on how to improve quality to receive higher prices, helped him apply for Rainforest Alliance certification, and gave him a loan to assist with the costs of certification.

Since working with Aldea for eight years, Santos has gradually increased his production and income. When asked about his goals for his family, Santos thinks of his son, Junior, and daughters, Oneida Junil and Jucdelin. “I want to continue prospering and planting and growing. I want this farm to be well-established for each of our children to inherit.”

With a focus on environmental conservation, social impact, and gender equity, Aldea shares a similar vision of the future. Today, the association receives financing from five CSAF members: Global Partnerships, Incofin, Oikocredit, Rabobank, responsAbility, and Triodos. With greater access to capital, Aldea’s sales revenue has increased at a compound annual growth rate of 38% over the past three years.
Cocoa

In 2016, CSAF members provided financing to 69 enterprises in the cocoa sector, up from 59 the prior year. Disbursements grew 20% to $79M, with the majority of this financing used to fund working capital expenses and to pay farmers for their crop.

More than 40% of global cocoa-sector disbursements went to borrowers in Ivory Coast, the world’s largest producer and exporter of cocoa beans. There, seven CSAF members currently lend to 22 cocoa businesses, up from 17 businesses receiving loans the prior year. Cocoa disbursements grew by 36% to reach $34M. By contrast, CSAF lending in neighboring Ghana, the world’s second-largest producer, remains limited to $3M to 5 borrowers in 2016, due in large part to the country’s more regulated export market.

Although Ivory Coast and Ghana dominate global cocoa production—accounting for roughly two-thirds of total output—other countries are turning to cocoa, especially as coffee production becomes unsuitable at lower-altitudes. In total, CSAF works with cocoa businesses in 14 countries across Africa, Asia, and South America.

For example, lending to Ecuador’s cocoa sector more than doubled in 2016, reaching $9M, with the number of businesses rising from 7 to 9. Defined by high-quality and fine flavored cocoa, Ecuador has consistently increased its output to become a top producer, and smallholder farmers account for upwards of 90% of the country’s production. Similarly, in Uganda, CSAF members reported credit volume rising to $12M, up from $10M. Cocoa now accounts for 35% of all CSAF lending in Uganda.

Despite broad growth across most cocoa-producing countries, members reported a significant decline in lending to Peru’s cocoa-sector for the first time. In 2016, lending by more than 50%, from $21M to $10M, and the number of borrowers dropped from 20 to 17.

Despite recent government, donor, and private sector efforts to encourage cocoa production in Central America—especially in El Salvador, Honduras, and Nicaragua—members have yet to report any significant increases in lending.

While Latin America cannot compete with West Africa on volume, its producers are well-positioned to benefit from the growing demand for high-quality cocoa. To fully realize the potential of cocoa production in Central America, there is a need for sustained efforts to further strengthen producer organizations and integrate market actors; promote the adoption of inputs and sustainable production practices; and ensure access to finance and trade partners.

Figure 24: Global Cocoa Lending & Borrowers

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>YoY Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ivory Coast</td>
<td>$22M</td>
<td>$25M</td>
<td>$34M</td>
<td>36%</td>
</tr>
<tr>
<td>Peru</td>
<td>$20M</td>
<td>$21M</td>
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<td>$10M</td>
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</tr>
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<td>125%</td>
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<tr>
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<td>$57M</td>
<td>$66M</td>
<td>$79M</td>
<td>+20%</td>
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Established in 2004, Enterprise Cooperative Kimbe, known as Ecookim, embodies a核心理念: “团结就是力量。”该组织由多个合作社组成，购买、加工和出口来自数千个小规模生产者的可可豆。这些生产者在西非象牙海岸的西部和北部地区耕作，这些地区深受高失业率、贫困和基础设施薄弱之苦。由于Ecookim的存在，他们现在可以直接接触到市场，并为他们的可可获得更高的价格。

在过去，Ecookim主要依赖于当地买家的资金，这使该组织处于较弱的谈判地位。“融资是可可合作社面临的首要挑战之一，”首席执行官Mamadou Bamba解释道。“有时可以从当地银行获得融资，但费用往往非常高昂。”

经过十年的发展，一个由可可合作社组成的联盟表明，可靠的融资渠道对业务的未来至关重要。

### BORROWER PROFILE

**Meeting the Evolving Financial Needs of Cocoa Producers in Ivory Coast**

**After a decade of growth, a union of cocoa cooperatives demonstrates why reliable access to finance is essential for the future of its business.**

Founded in 2004, Enterprise Cooperative Kimbe, known as Ecookim, has a simple motto: “unity is strength.” The organization is a union comprised of smaller cooperatives that purchases, processes, and exports cocoa beans from thousands of smallholder producers. These producers cultivate over 40,000 hectares of land in Western and Northern Ivory Coast, regions that suffer from high unemployment, poverty and poor infrastructure. Because of Ecookim, they now have more direct access to markets and premium prices for their cocoa.

In the past, Ecookim depended mostly on the funding provided by local buyers, putting the organization in a weaker bargaining position. “Access to financing is one of the principal challenges faced by cocoa cooperatives in Ivory Coast,” explained CEO Mamadou Bamba. “On the rare occasions it can be obtained from local banks, it is often extremely expensive.”

In 2011, Alterfin became the first international lender to finance Ecookim. At that point, the union consisted of seven cocoa cooperatives and approximately 3,000 producers.

Today, Ecookim has 23 member cooperatives, representing a combined 12,000 producers. Alterfin has renewed and expanded its credit line each year, and Ecookim has since received financing from several other CSAF members, including Incofin, Oikocredit, responsAbility, and Shared Interest.

Beyond short-term trade credit, lenders partnered with Rainforest Alliance in 2016 to provide Ecookim’s producers long-term finance so they could rejuvenate aging and disease-prone trees through a process known as renovation.

With co-investment from the union itself, Alterfin provided a long-term loan, while responsAbility’s technical assistance facility supported the project with grant funding. The loan funding is being channeled through Ecookim in the form of a multi-year package of in-kind loans to 335 of its members. Three different loan packages and extended grace periods have been designed according to farmers’ long-term renovation plans.
Nuts

In 2016, lending to businesses involved in the production, processing, and export of various ground and tree nuts more than doubled, reaching approximately $82M and outplacing cocoa as the second-most financed crop. Lending to businesses in the cashew nut sector, in particular, more than doubled, from $18M to $46M, with most growth taking place in Vietnam followed by Nigeria and Burkina Faso. However, despite this recent growth, lenders remain cautious due to a heightened risk stemming partly from limited operational and managerial capacity among earlier-stage businesses that have invested in processing lines. In 2016, PAR30 in the cashew sector stood at 10%, nearly the figure for CSAF lending across within coffee.

While about 50% of the world’s raw cashew nuts are produced in Africa, Vietnam is the largest exporter of processed cashew nuts. It is here, in one of Southeast Asia’s fastest-growing economies, where several SMEs are partnering with CSAF members to meet the world’s increasing appetite for cashews.

Last year, lenders provided $20M in credit to Vietnam’s cashew sector, up from $12M the previous year and $4M in 2014. As the country aims to increase the volume of cashew exports in the years ahead, CSAF members are projecting continued opportunities for growth.

Similarly, the macadamia nut sector in East Africa continues to expand, with the volume of credit now exceeding $10M, up from just $3M two years prior. Macadamia nuts account for a relatively small portion of the overall tree nut sector, especially when compared to almonds or cashews. However, the value chain presents compelling economic opportunities in rural areas, especially formal employment for women.

With rising consumer demand, the world’s fourth-largest macadamia nut producer, Kenya is capitalizing on the trend with financing from several CSAF members. In 2016, lending to Kenya’s macadamia sector once again doubled, as members provided eight macadamia nut processing companies with loans to purchase crops from smallholder farmers and invest in new equipment.
Challenges & Risks

Simply by working in the agricultural sectors of low- and middle-income countries, CSAF members and our borrowers are able to achieve outsized impact: improving livelihoods for smallholder farmers, conserving the environment, empowering women and youth, and creating opportunities for formal employment. However, agriculture is an inherently risky industry, and these opportunities for impact are not guaranteed.

In recent years, members have observed a weakening of credit quality among existing borrowers, with slower repayment rates, increased loan restructurings, and higher write-off rates.

This is driven by complex and often interrelated challenges at both the micro and macro levels that constrain the growth of agricultural SMEs and jeopardize the livelihoods of smallholder farmers. Increasingly unpredictable climatic conditions and extreme weather events, shifting tax and trade policies, and other factors can have a ripple effect throughout agricultural supply chains.

For instance, amongst several other challenges, low commodity prices in recent years have put agricultural SMEs at a distinct disadvantage relative to large trading companies, as many SMEs operate with relatively high fixed costs and depend on a single crop. When the value of their sales decreases, even by relatively minor amounts, already thin margins are further compressed.

For businesses that tend to be under-capitalized to begin with, a year of low or negative profitability can significantly jeopardize commercial viability; insufficient access to finance amplifies these challenges. Many SMEs simply have not built the balance sheets that are required to withstand multiple years of financial losses, or even one year.

At the end of 2016, portfolio-at-risk greater than 30 days (PAR>30) across all CSAF member portfolios was 7.8%, down from 11.3% at year-end 2015. The percentage of non-performing loans was especially high in a few countries that make up a relatively small percentage of overall CSAF lending (Benin at 36%, Paraguay at 42%, and India at 19%). Also, perishable products, such as fruit, vegetables, and dairy, represent significant risk. Borrowers in the rice (14% PAR30), quinoa (13% PAR30), and cashew nut (10% PAR30) value chains also faced significant production, price and market risk in 2016. While lending risk for CSAF members in the coffee sector (5.2% PAR30) is lower than the industry average, it is higher than it has been historically.

CSAF lenders also reported that they restructured loans with 10% of clients in 2016, down from 13% the prior year,
with the highest percentage of loan restructurings among borrowers in sub-Saharan Africa and South America.

Given the wide range of variables that can affect borrowers' ability to repay a loan, identifying the underlying cause of risk can be challenging; it is usually not just one factor, but a confluence of unforeseen events at the farm, enterprise, industry and even country level. To gain better insights into the varied reasons why some borrowers have difficulty repaying loans, members conducted an analysis across all historical portfolios for the first time in 2016.

As highlighted in figure 28, the largest number of non-performing loans occurred with borrowers where management capacity was limited. Crop failure due to weather and pests followed closely as the second highest driver towards loan default or non-performance, according to data reported by CSAF members.

Figure 28: Factors for Non-Performing Loans as Reported by CSAF Members

Figure 29: PAR30 for Most-Financed Crops

Figure 30: PAR30 for Most-Financed Countries
Managing Price Risk from the Farm Gate to the Futures Market

Whereas demand for sustainably farmed products is increasing at a steady pace, the supply of agricultural ingredients is much less predictable. Over the past several years, soft commodity markets have seen a series of volatile price swings—from the dramatic increase in food prices during 2007/2008 to the short-lived surge in coffee prices during 2014 to this year’s abrupt fall in the price of cocoa.

Seasonal production cycles, changing weather patterns, and a several other factors on both the supply and demand sides mean that some volatility can always be expected. However, price volatility can adversely and disproportionately affect smallholder farmers who are least able to manage and cope with the financial shocks that follow.

For example, after rising for four consecutive years and reaching $3,300 a ton, global cocoa prices experienced a sharp decline in late 2016 due to oversupply in West Africa. Prices continued to fall sharply into 2017, tumbling to less than $2,000 and prompting the government of Ivory Coast to cut its minimum farm-gate price by one-third after multiple years of annual increases. Meanwhile, tight supplies led to a slight rebound in the price for Arabica coffee beans, which climbed through much of 2016 and reached $1.78 before retreating before the end of the year.

While many borrowers sell their products at negotiated premiums above the prevailing international price due to superior quality fair trade, and sustainability attributes, the futures market remains a widely used reference point for pricing, and its volatility demonstrates the uncertain environment within which farmers and their enterprises must operate.

Even small variations in price can have significant consequences for smallholder farmers who depend on coffee sales for their livelihoods and need to invest in inputs and other productivity-enhancing activities each season.

Lenders are also exposed to this price risk and have an important role to play in helping their borrowers understand the options available to hedge and protect against major price movements, especially before and during harvest seasons. CSAF members are actively involved in various efforts to promote price risk management solutions. For example, Oikocredit is currently helping to equip producer organizations across five Latin American countries with the skills and tools needed to manage price risk. CSAF members have also organized price risk management training sessions for our loans officers in Lima, Nairobi, and Amsterdam in recent years.
Today, there several important financing platforms to address climate change mitigation and adaptation at global, regional and national levels, but few examples of downscaling this support to reach smallholder farmers. Agriculture is responsible for about one-third of greenhouse gas emissions and is the second largest contributor after energy production. At the same time, we know climate change has the potential to both positively and negatively affect the location, timing, and productivity of farming systems at local, national, and global levels.

For instance, recent research suggests that climate change could cut global coffee production in half. In many locations, we are already seeing how warmer temperatures and irregular rainfall patterns affect agricultural production.

In 2016, The Climate Institute found that climate change may reduce the global area suitable for coffee production by as much as 50 per cent by 2050. Similarly, climate change is projected to reduce area suitable for cocoa production in West Africa by one-third by 2050, with most of the negative impacts already present by 2030, according to the International Center for Tropical Agriculture (CIAT).

As financial institutions working directly with rural businesses, CSAF members have a role to play in helping agricultural SMEs and smallholder farmers adapt. The challenge is how to put capital to work for climate adaptation given the attendant financial risks, complex science, and technical expertise required.

Among the initiatives that do focus on agriculture, few have successfully “down-scaled” to reach agricultural SMEs, and even fewer have extended to individual farmers in low- and middle-income countries.

CSAF members are exploring ways in which we as lenders can design and pilot innovative financial solutions that are accessible, affordable and tailored appropriately for farmers and SMEs across different geographies.

Importantly, how can all actors within a value chain align financial incentives in a way that promotes improved soil management, more efficient use of fertilizers, and other production practices that offer the greatest reduction potential at relatively low costs?
Making the Case for “Smart Subsidy”

Today, a growing number of investors and financial intermediaries are exploring opportunities to blend capital with different risk, return, and impact objectives in support of sustainable agriculture. Meanwhile, many national governments are beginning to allocate more funds to rural development; multilateral organizations and donors are looking to provide the smart subsidy that is crucial to ensuring growth; and food and beverage companies are increasingly investing in their supply chains in ways that deliver shared value for producers and consumers alike.

Halfway through 2017, CSAF members continue to increase our lending with most lenders reporting expected growth of 5-10% in 2017; the fastest growth is projected to come from (in order): Colombia, Indonesia, Uganda, and Kenya. However, it is important to note that CSAF growth projections are driven by a combination of market demand, the ease of doing business as foreign lenders in these markets (i.e., the enabling environment), and the number of investment-ready businesses we can find.

As outlined below, we believe that donors, investors, and policymakers have an important role to play in growing the supply of appropriate capital available and building capacity among SMEs that aggregate smallholder producers so that many more enterprises are credit-ready.

The 2016 study *Inflection Point* and other recent reports on agricultural finance have found that there is massive unmet need for credit at both the level of individual smallholder farmers (~$150 billion) as well as SMEs operating at various points along agricultural value chains (~$2 trillion for all SMEs, of which the agricultural sector is a material share). While causes of this financing gap are varied and complex, countries with more developed agricultural and SME sectors tend to have a range of government-funded support systems. For agriculture, these include crop insurance and disaster relief programs; de-risking mechanisms, such as loan guarantee facilities to incentivize financial service providers; investments in modern infrastructure for cold chains, ports, and transportation; and public funding for crop research and food safety.

This type of publicly funded scaffolding is nascent in some countries where CSAF lenders operate and entirely absent in others. In this context, lenders are faced with a difficult choice between absorbing heightened financial risks or remaining on the sidelines altogether. CSAF members believe that a third way is not only possible but essential for growing the market and positively impacting farmer livelihoods, food security, and environmental objectives from ecosystem conservation to climate change mitigation and adaptation. Specifically, our experience affirms the need for what *Inflection Point* refers to as “smart subsidy.” In other words, “blending capital to substantially increase the total flow of funding” into a market.

To be clear, we are financial institutions that take a market-based approach, charge competitive interest rates, and expect our loans to be repaid on time. Most members are embedded within larger financial institutions that have achieved consistent profits in impact sectors ranging from microfinance to renewable energy. And yet our financial performance in agricultural SME lending ranges from barely breaking even to operating at a loss and requiring cross-subsidy from other business lines.

Operating on the precipice of financial sustainability is not conducive to long-term growth for CSAF members or, more importantly, the businesses that we finance. Nor do we see other financial service providers reaching agricultural SMEs, particularly the market segment below $2M, on a commercial basis.

It is notable that smart subsidy programs underpin market activity in the agricultural and small business sectors of the world’s most developed economies from North America to Europe to East Asia. The question is, how can subsidy truly

be “smart” and not distort markets? And in a world of finite resources, what smart subsidies have the highest return on investment? We believe that a successful strategy for catalyzing a robust and high-impact financial market for agricultural SMEs should include smart subsidy and policy reform across three categories:

Increase the supply of appropriate capital by leveraging public funding to attract private investors.

It is well-documented that existing financial products from banks and other lenders are typically not tailored to the cash flows of agricultural production cycles and/or impose stringent collateral requirements that are not feasible for most agricultural SMEs to meet. Designing financial products to meet the needs of agricultural SMEs is not a technical challenge per se. Rather, the challenge lies in designing products that both meet businesses’ needs and offer attractive returns for investors and financial intermediaries.

This, in turn, underscores the fundamental challenge: given the absence of public subsidies and market infrastructure, the return expectations of financial institutions and investors are not consistent with the investment opportunities currently available in the market segment below $2M where most CSAF lending occurs, let alone under $500K, where there is the greatest unmet demand.

We see the need for a more candid dialogue about financial risk and return relative to the impact objectives around livelihoods, food security, and climate that donors, development finance institutions, and multilaterals seek to achieve. To mobilize capital at the scale required to address unmet need, we believe that publicly funded entities should shift their investment strategies to accept higher risk and lower returns – including negative returns when the impact outcomes warrant the subsidy – in order to crowd in private capital.

Build capacity to expand the number of investment-ready businesses. There is a classic chicken-and-egg challenge where the vast majority of agricultural SMEs do not qualify for finance because they are not yet large enough, while businesses cannot grow to become attractive investments without access to finance.

Addressing the supply side, as discussed above, is only part of the equation and must be complemented by capacity building to make more high-potential enterprises investment-ready. Much of the technical assistance for agricultural enterprises is currently designed around top-down, donor-funded projects that focus on specific geographies or value chains and leave a substantial portion of the market underserved.

There is an opportunity to create a more flexible, market-oriented approach to funding technical assistance that is better aligned with investor criteria and priorities. In parallel, we advocate for policies that proactively seek to recruit and retain talent within the agricultural sector.
Strengthen the enabling environment through legal and regulatory reform and smart subsidies. CSAF members experience various legal and regulatory constraints to lending ranging from restrictions on foreign capital flows (e.g., Ecuador, Ethiopia, India) to government marketing boards (e.g., cocoa sector in Ghana, coffee sector in Kenya) to inadequate power, poor roads, and unreliable cold chain (most of the landlocked countries in sub-Saharan Africa). These challenges are complex and often require political solutions.

We plan to explore more proactive approaches to engaging policymakers and funders to identify and address legal and regulatory barriers to agricultural SME lending. We also hope that shining a light on the capital that CSAF members deploy for impact in some countries will inspire their neighbors to consider modifying their policies.

In the coming months, CSAF will be developing more concrete proposals for smart subsidy programs based on our experience and dialogue with peers, donors, and policymakers. Here are seven ideas that we believe have potential:

1. Pay for results to reach high-impact, underserved market segments. We propose to develop an approach for compensating lenders that generate specific types of impact by lending to enterprises that are otherwise not financially viable to serve because of the small investment size, difficult geography, or nascent value chain.

The idea is to identify where the commercial market is not functioning adequately, determine what are the highest impact investments that are available, and create economic incentives for lenders to make those loans.
For example, a nine-month working capital loan of $200,000 to a small and growing agricultural enterprise might generate $15K in interest and fee revenue for the lender and cost $30K in operating expenses, risk provisioning, and cost of capital. Under what circumstances might it make sense to pay the lender an additional $15K to make this loan? If there is reasonable evidence demonstrating 1) that the loan generated incremental income for smallholder farmers well in excess of $15K; and 2) that a similar loan would not have been made by a commercial provider that does not require operating subsidy.

The argument for a smart subsidy program along these lines is two-fold: first, there would be a positive social return on investment in year one (i.e., incremental income to poor farmers in excess of the subsidy required); and second, that the enterprise is likely to continue growing and creating additional incremental income for farmers with progressively less operating subsidy required by the lender to serve the business in future years.

Root Capital has begun to develop a framework for such an approach, as described in the 2016 article *Toward the Efficient Impact Frontier* in *Stanford Social Innovation Review*, and CSAF members are exploring how to adapt this model for broader application.

2. **Technical assistance voucher program.** CSAF members often find that prospective borrowers lack adequate financial management capacity or other business skills necessary to qualify for, manage, and repay a loan.

Typically, the businesses that need capacity building the most are least able to pay for it. Some donor programs exist to address these obstacles to business growth but limited funding and rigid criteria result in large segments of the market being excluded.

We propose a technical assistance facility where accredited financial institutions can provide vouchers to prospective borrowers that are on the cusp of qualifying for finance but must first address specific areas. The business would then choose from among a list of accredited technical assistance providers that would receive a guaranteed payment for delivering the technical assistance and a performance incentive if the business subsequently accessed finance. Businesses using the vouchers would be required to pay a portion of the technical assistance costs both to align incentives and to create a market for lower cost, local providers. A rating system for technical assistance providers would bring transparency to the market for users to make informed decisions on quality and price.

3. **Distressed debt facility.** A distressed debt facility could provide liquidity in situations where lenders are working with an enterprise to restructure loans (e.g., in response to a drought or crop disease, such as the coffee leaf rust epidemic in Latin America) and fresh capital is required for the business to continue operating.

4. **Foreign currency facility.** A foreign currency facility could reduce the cost for lenders to hedge currency risk on transactions sizes that are relatively small and therefore expensive to hedge using existing products on the market. Mitigating foreign exchange risk will enable increased local currency lending to boost domestic production, processing, and distribution of staple grains. This is particularly important in sub-Saharan Africa, which currently imports $35 billion of food annually.

5. **Loan guarantees.** Loan guarantees reduce exposure for lenders operating in particularly risky segments ranging from early-stage enterprises and nascent value chains to post-conflict geographies. While individual CSAF members have accessed guarantee facilities from USAID’s Development Credit Authority and others to expand lending in specific geographies, we see opportunities for economies of scale through a much larger facility that would allow several financial institutions that meet a set of lending and impact criteria to achieve greater collective impact.

6. **Scholarships.** Scholarships for talented students to obtain university and post-graduate degrees in exchange for one or more years of placement at an agricultural SME. Several countries require all university graduates to complete a year of post-graduate service. Matching this talent with agricultural businesses, as one CSAF member is currently doing on a pilot basis with food technologists and accountants at six Ghanaian enterprises, could address immediate needs for the businesses and attract more talent into the sector in the long term.
Similarly, to attract youth entrepreneurs to agriculture there are opportunities to design and pilot programs modeled after the YouWiN! Competition launched by the Nigerian government with funding from the U.K.’s Department for International Development and the World Bank. The program, which provided seed capital and capacity building to entrepreneurs, is considered among the most effective development programs ever by economists who have studied it.

7. Mapping the legal and regulatory landscape. Agricultural SMEs and their financial service providers struggle to adapt to constantly changing legal and regulatory environments. There is a need to map and identify reforms, including public investment at the national level, that could unlock substantial growth in the market.

As financial institutions motivated by social and environmental impact, we believe in the power of markets and the value of competition even as we recognize the systemic risks and high transaction costs that have historically stymied lending to agricultural SMEs.

Individually, our institutions seek to overcome these challenges through creativity and sheer force of will. Collectively, we seek to share learning, develop standards and best practices for our growing industry, and shift the paradigm in which we operate so that we and many others can fill the market gap and unlock the potential of agricultural businesses to improve livelihoods and contribute to a more sustainable planet.
**APPENDIX: Data Summary**

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<td>Change from</td>
<td>Percent of</td>
</tr>
<tr>
<td></td>
<td>Disbursed</td>
<td>Previous Year</td>
<td>Global Disbursements</td>
</tr>
<tr>
<td>Global</td>
<td>$682.0M</td>
<td>9%</td>
<td>100%</td>
</tr>
<tr>
<td>South America</td>
<td>$222.0M</td>
<td>-10%</td>
<td>33%</td>
</tr>
<tr>
<td>Argentina</td>
<td>$17.6M</td>
<td>53%</td>
<td>3%</td>
</tr>
<tr>
<td>Bolivia</td>
<td>$19.3M</td>
<td>-40%</td>
<td>3%</td>
</tr>
<tr>
<td>Brazil</td>
<td>$3.5M</td>
<td>-19%</td>
<td>1%</td>
</tr>
<tr>
<td>Chile</td>
<td>$3.8M</td>
<td>-7%</td>
<td>1%</td>
</tr>
<tr>
<td>Colombia</td>
<td>$30.8M</td>
<td>22%</td>
<td>5%</td>
</tr>
<tr>
<td>Ecuador</td>
<td>$17.2M</td>
<td>46%</td>
<td>3%</td>
</tr>
<tr>
<td>Paraguay</td>
<td>$3.3M</td>
<td>-75%</td>
<td>0%</td>
</tr>
<tr>
<td>Peru</td>
<td>$122.5M</td>
<td>-13%</td>
<td>18%</td>
</tr>
<tr>
<td>Uruguay</td>
<td>$4.2M</td>
<td>-5%</td>
<td>1%</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>$188.0M</td>
<td>44%</td>
<td>28%</td>
</tr>
<tr>
<td>Benin</td>
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<td>112%</td>
<td>1%</td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>$6.5M</td>
<td>30%</td>
<td>1%</td>
</tr>
<tr>
<td>Ghana</td>
<td>$13.4M</td>
<td>483%</td>
<td>2%</td>
</tr>
<tr>
<td>Ivory Coast</td>
<td>$36.8M</td>
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<tr>
<td>Kenya</td>
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<tr>
<td>Madagascar</td>
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<tr>
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<tr>
<td>Mozambique</td>
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<tr>
<td>Rwanda</td>
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<td>-31%</td>
<td>2%</td>
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<tr>
<td>Senegal</td>
<td>$0.9M</td>
<td>13%</td>
<td>0%</td>
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<tr>
<td>Tanzania</td>
<td>$28.9M</td>
<td>85%</td>
<td>4%</td>
</tr>
<tr>
<td>Togo</td>
<td>$4.4M</td>
<td>193%</td>
<td>1%</td>
</tr>
<tr>
<td>Uganda</td>
<td>$35.5M</td>
<td>13%</td>
<td>5%</td>
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<tr>
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<tr>
<td>Central America</td>
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<td>-8%</td>
<td>20%</td>
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<tr>
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<td>3%</td>
</tr>
<tr>
<td>Dominican Rep.</td>
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<td>-12%</td>
<td>0%</td>
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<tr>
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<td>$0.2M</td>
<td>0%</td>
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</tr>
<tr>
<td>Guatemala</td>
<td>$16.0M</td>
<td>-13%</td>
<td>2%</td>
</tr>
<tr>
<td>Honduras</td>
<td>$34.3M</td>
<td>-14%</td>
<td>5%</td>
</tr>
<tr>
<td>Mexico</td>
<td>$11.6M</td>
<td>-9%</td>
<td>2%</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>$51.5M</td>
<td>-4%</td>
<td>8%</td>
</tr>
<tr>
<td>South &amp; East Asia</td>
<td>$84.0M</td>
<td>24%</td>
<td>12%</td>
</tr>
<tr>
<td>Cambodia</td>
<td>$5.3M</td>
<td>61%</td>
<td>1%</td>
</tr>
<tr>
<td>India</td>
<td>$24.0M</td>
<td>-6%</td>
<td>4%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>$13.3M</td>
<td>64%</td>
<td>2%</td>
</tr>
<tr>
<td>Laos</td>
<td>$2.5M</td>
<td>-19%</td>
<td>0%</td>
</tr>
<tr>
<td>Philippines</td>
<td>$3.2M</td>
<td>220%</td>
<td>0%</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>$0.7M</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Vietnam</td>
<td>$20.7M</td>
<td>52%</td>
<td>3%</td>
</tr>
</tbody>
</table>

*Standard methodology applies. Data does not total due to rounding and the exclusion of countries with fewer than two lenders (e.g., Malaysia, Thailand). For businesses with a regional presence, disbursements are categorized by the country where a borrower is headquartered.*
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