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POSITIVE IMPACT CASE STUDY:

Transforming the Agrifinance Market System in Ghana

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Transforming the Agrifinance Market System in Ghana

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THE SETTING

THE OVERLOOKED AGRICULTURAL INPUT: FINANCING

Agricultural finance is key to transforming the global food system and reducing poverty in agrarian, developing economies. Yet across the developing world, demand for agricultural finance grossly outstrips supply. Despite recurrent efforts by developing country governments and donor agencies to increase access to finance and investment for agribusiness, a formidable global finance gap persists. The food- and agriculture-related UN agencies estimate that ending poverty and hunger requires additional financing in agriculture and rural development to the tune of $140 billion per year.

While significant sources of finance exist across markets, this capital is difficult to mobilize for agriculture due to a number of factors. These include the widespread perception that financing agribusiness is inherently riskier and less profitable than financing other sectors, high transaction costs associated with serving smallholders and small and medium-sized enterprises (SMEs), sector inexperience and inappropriate financial products offered by financial institutions (FIs), and limited availability of financial intermediation services for agribusinesses. Incremental efforts to help banks develop new financial products, or facilitation of one-off transactions have not sufficed to change this dynamic. Unlocking finance at scale requires a transformation of the entire market system by demonstrating the value that accrues to all system actors by doing business differently.

This case study examines a proof of concept project for transforming a market system—Ghana's agrifinance market—by realigning incentives to motivate behavior change among private sector actors. By doing so, the USAID Financing Ghanaian Agriculture Project (USAID FinGAP), a five-year (2013-2018), $22 million Feed the Future program, was able to significantly expand high-quality agricultural lending and create a market where FIs are competing for market position in agricultural finance. After introducing the key actors and systemic challenges they faced in 2013, this case study looks at the pathways that created economic and social value for the actors in the system and quantifies the new value created. Additionally, this case study presents a compelling case for commercializing and internationalizing the project model. For example, the opportunity exists for the creation of a blended finance mechanism where private investors globally can contribute to mobilizing significant, international funding for Ghana's agriculture sector while obtaining a commercial return on capital.

MEET THE KEY ACTORS

Agriculture is one of the primary drivers of the Ghanaian economy. Ghana's agriculture sector is responsible for nearly a quarter of the nation's GDP and employs over half of its work force. But despite its economic importance and critical contribution to food security—particularly in the cultivation of staple crops such as maize, rice, and soy—agriculture in Ghana has been historically underfunded. At the outset of the project, each key actor in the agrifinance system faced constraints that impeded the effective functioning of the market system.

AGRIBUSINESSES

In 2013, small, medium, and large enterprises in Ghana's agriculture sector consistently cited access to financing as the principal barrier inhibiting business growth. Agribusinesses across the project's targeted value chains of maize, rice, and soy—including processors, aggregators, traders, input providers, and producers—required a comprehensive suite of short-, medium-, and long-term financing options to support their evolution, which they struggled to access via formal FIs due to both supply and demand side barriers.

Prospective borrowers were unfamiliar with the financial system; they weren't sure which sources of funds were best aligned to their needs, or how to create bankable financing applications that met the requirements of FIs. Most agribusinesses were not using Business Advisory Services (BAS) providers to develop their "business cases" for financing, and those that had accessed BAS (of varying quality) mainly did so with the support of donor projects rather than on a commercial basis. Despite a clear need for support to access loans, most agribusinesses didn't see sufficient value to pay for BAS. As a result, these firms were unable to expand their business ventures and largely had to rely on internally-generated revenue to fund operations. Agribusinesses were also constrained by the inability of their smallholder suppliers to meet cost, volume, and quality requirements. Despite the presence of tens of thousands of local farmers producing staple foods in Northern Ghana, in many cases processors were forced to import raw materials to supplement production volumes from domestic farmers.

SMALLHOLDER FARMERS

In 2013, smallholder farming accounted for 80% of total agricultural production in Ghana, with around 90% of smallholders farming on less than two hectares. Smallholders faced pervasive challenges that limited their income-generating potential, including low productivity, high post-harvest losses, and inadequate access to markets. While increasing numbers of smallholders had benefitted from integration into commercial relationships with lead firms, the vast majority sold produce directly to informal traders, who then sold to larger firms. Smallholders also tended to have little or no access to credit, which limited their ability to invest in technology and inputs to increase yields. Without sufficient access to finance, smallholders were unable to make the necessary improvements in productivity and quality to meet the requirements of a growing base of processors and customers with changing tastes. This market failure resulted in widespread poverty, food insecurity, malnutrition, and migration to cities – all of which were most prevalent in Ghana's northern regions.

BUSINESS ADVISORY SERVICE PROVIDERS

The large number of local BAS providers that existed in 2013 were providing a wide range of financial, management, and other consulting services at varying levels of quality and at limited scale. The few BAS providers that were focused on the agriculture sector lacked a commercial orientation and were compensated principally by the government, donor agencies, or donor-funded projects. Of these, hardly any focused on facilitating commercial financing for agriculture-related SMEs. The few BAS providers that had specialized experience in financial facilitation services typically worked with large clients in more developed economic sectors (i.e. gold, oil, cocoa), and lacked knowledge of agricultural value chains and the unique constraints of agribusiness SMEs related to financing. Two major barriers prevented BAS providers from making inroads in the market for agribusiness BAS provision: (1) lack of subject matter expertise, and (2) low, perceived value of BAS on the part of potential clients. As a result, very few BAS providers were successfully facilitating financing for agriculture clients.

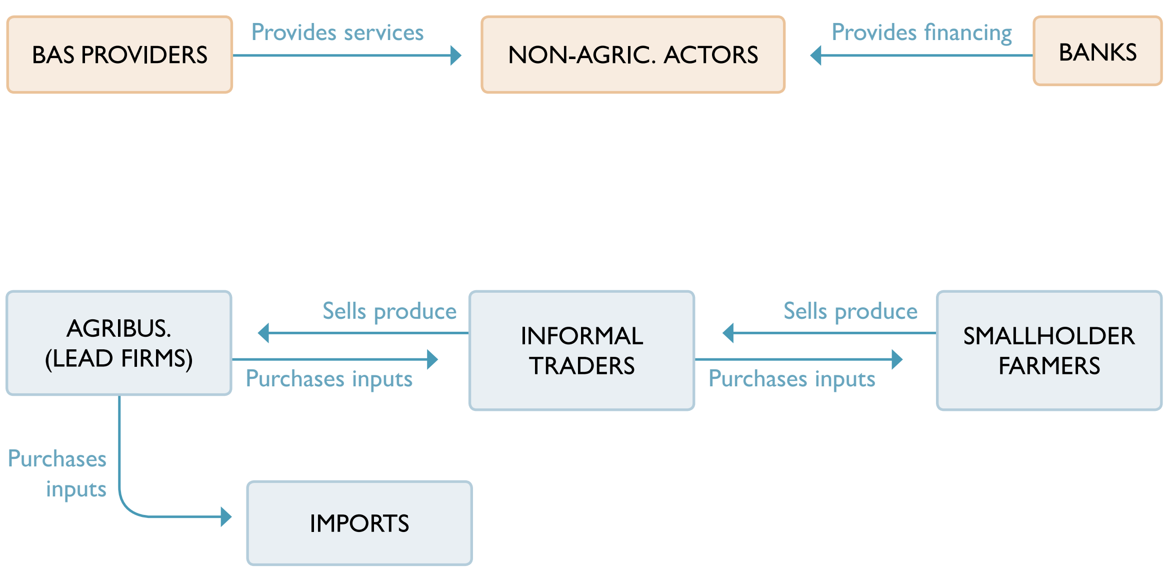
FINANCIAL INSTITUTIONS

In 2013, commercial banks (i.e., the 26 banks which made up the universal banking system and accounted for 87% of all lending), with some exceptions, cautiously avoided lending to agribusinesses. Citing high systemic risks of agriculture, bad past experiences, and lingering sub-standard agriculture portfolios, the FIs as a group were allocating approximately 5% of their collective lending assets to agriculture. Ghana's Rural Community Banks (RCBs) and Non-Bank Financial Institutions (NBFIs), located closer to the farming communities, were dedicating a higher percentage of their lending portfolios to agriculture. But even these FIs did not have portfolios that reflected the size of the predominantly agricultural economic activity in their communities.

Most FIs at the time did not perceive agribusiness SMEs as a profitable market segment, and had not oriented their lending policies or incentivized their loan officers to serve these potential clients. The majority of Ghanaian FIs were engaged in traditional collateral-based lending that was difficult for SMEs to access, and most products offered were generic business loans, often not suited to agribusinesses' cash cycles. As a whole, FIs saw risk and high transaction costs—not returns—in the agribusiness SME sector, and were largely unmotivated and unequipped to lend to it. There were a few FIs that had begun to see the potential market opportunities in agricultural financing and were interested in expanding their agriculture portfolios, but they had not yet embarked on it systematically or successfully. With support, these first-mover FIs were critical partners in the early stages of the project.

As shown in the figure below, Ghana's agricultural and financial systems were largely disconnected in 2013. Both FIs and BAS providers sought clients in non-agriculture sectors, leaving agribusinesses and smallholder farmers to fend for themselves. Ghana's agribusinesses were the leading providers of finance and technical assistance (TA) for smallholder farmers. This practice was born out of necessity, but was ultimately inefficient, as these firms had to rely on internal capital to lend, which limited scale and inhibited their own ability to grow. Meanwhile, capital laid dormant within commercial FIs, while bank loan officers lamented the limited supply of "good deals" in which to invest.

Figure 1: **Ghana's Agrifinance System: Status Quo in 2013**



THE USAID FINGAP SOLUTION

In this context, USAID FinGAP was conceived by USAID as a solution to ensure that USAID's large-scale investments to boost agricultural productivity nationally were not wasted, and that needed investments in infrastructure such as storage, processing, transportation and other logistics were made, so a wider set of actors along these staple foods supply chains could benefit from expanded yields. The idea was that USAID FinGAP could realign incentives to encourage financial sector actors to significantly increase agricultural lending at scale for the maize, rice, and soy value chains.

Palladium was contracted by USAID in 2013 to test the project's hypothesis that non-traditional incentives provided at scale to actors on the supply- and demand-sides could be just as effective as traditional financial sector reform efforts (i.e. bank training, new product development) in pulling Ghanaian FIs into the agricultural lending space, and that once that the capacity was established to facilitate agribusiness lending, further incentives would no longer be needed.

Palladium designed USAID FinGAP to be a comprehensive intervention that simultaneously addressed barriers limiting the supply of and demand for finance and inhibiting the enabling environment by pairing a range of Pay-for-Results (PfR) methodologies with intensive technical assistance. The project was the first of its kind to be considered by USAID/Ghana, encouraging the use of $5 million of a $22 million project in the form of "smart subsidies" to motivate private sector actors to sustainably expand agricultural lending at scale, without creating moral hazard.

After identifying the lack of quality consulting services for the agriculture sector as a principal market failure contributing to the gap in agricultural financing, Palladium dedicated half of the project's "smart subsidies" toward the creation of a market for financial facilitation services by paying transaction providers upon successful release of financing to their SME clients. The project also used "smart subsidies" in the form of grants to FIs to stimulate rapid expansion of agricultural lending among Ghanaian FIs, by rewarding these partners with grants resources when pre-determined lending targets were met. Both FIs and BAS providers also received intensive capacity building support to deepen their understanding of agricultural financing needs and lending methodologies. In addition, the project addressed enabling environment barriers by providing extensive assistance to the Government of Ghana's (GoG) capital markets infrastructure to expand access to alternative financing options, and used incentives to scale the usage of risk mitigation tools, including the Ghana Agricultural Insurance Program (GAIP) and EximGuaranty.

After five years of implementation, USAID FinGAP successfully mobilized $168 million in new, private sector investment in agribusinesses in the maize, rice, and soy value chains, which are linked to over 169,000 smallholder farmers in Northern Ghana. In addition, the project's capital markets development initiatives led to two SMEs successfully listing securities – one on the Ghana Alternative Market, and one on the Ghana Fixed Income Market – raising an additional $91.1 million in alternative capital for these two actors, one of which had pension fund involvement.

USAID FinGAP is considered a success not only because of the volume of new, incremental financing unlocked for the agriculture sector, but also because it changed the market for financing in Ghana from one where FIs were unmotivated and unequipped to lend to agribusinesses, to one where FIs are competing to be leaders in agricultural lending. The project also created a successful market for agrifinance facilitation services, developing a cadre of BAS providers capable of providing quality transaction services in perpetuity, and ensuring that agribusiness SMEs understood the value of this support to their businesses. The key to success was that each actor in the system – FIs, BASPs, agribusinesses, and smallholder farmers – were able to perceive clear economic benefits from doing business differently and changing the way they interacted with other actors in the system.

This case study is designed to answer the following questions:

1. How have the agrifinance system and the relationships/behaviors among the key actors changed? Why?
2. What and how much economic and social value has been created? How is this distributed among all the actors?
3. Is this system now commercially sustainable and scalable?
4. What are the lessons learned for further improvement and similar programs looking to reorient agrifinance systems?

PATHWAYS TO CREATING ECONOMIC AND SOCIAL VALUE

The table below highlights the change initiatives that needed to occur to move each actor to achieve the desired outcomes.

Actor	Baseline Situation	Change Process	Desired Outcomes
Agribusinesses of all sizes	Difficulty accessing finance to expand operations	Access to BAS for financial facilitation	Working capital and growth capital
	Limited experience using BAS for loan facilitation	Partnerships with preferred suppliers	Increased purchase of quality raw materials
	Low levels of working capital to expand input purchases	Secure and stable input supply	Investment in business inputs
			Increased revenue
			Increased profits

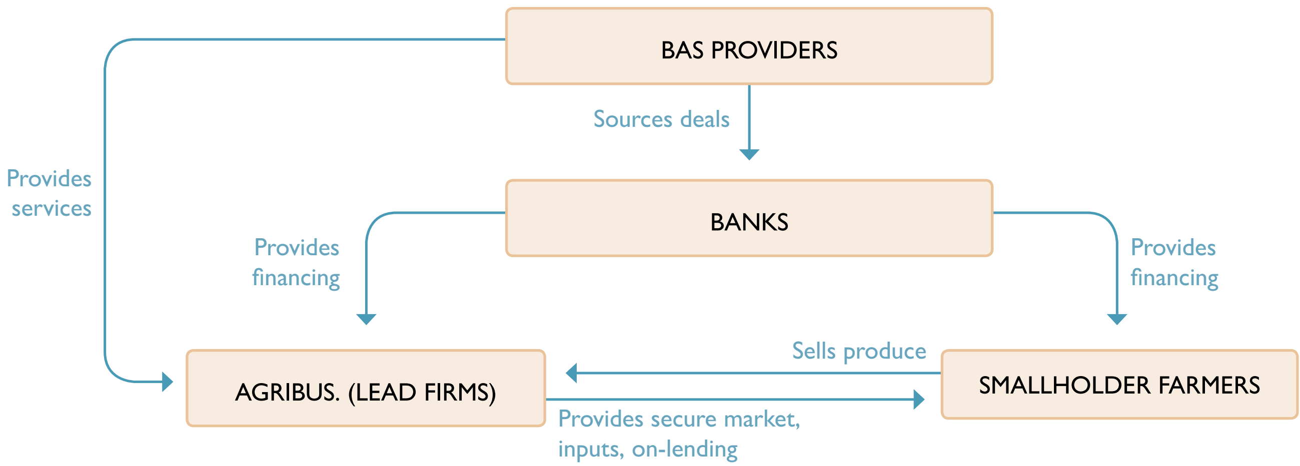
Actor	Baseline Situation	Change Process	Desired Outcomes
Financial Institutions	High nonperforming loan (NPL) rates (21%) Agribusiness lending viewed as riskier, costlier than other sectors Limited expertise in value chain finance/ag lending Few loan products tailored to agriculture	Quality deal pipeline Compensation for meeting portfolio expansion targets Track record of success Utilization of risk mitigation tools	Improved loan performance Increased revenue Improved loan monitoring Expanded product portfolio Expanded client base
BAS Providers	Agriculture services market small, donor-funded Limited experience facilitating financing for SMEs/agribusinesses Difficulty identifying clients Limited FI contacts Unconvinced of market potential for agribusiness financial facilitation	Track record of success Relationships with finance providers Expertise in ag finance New business models and payment structures	Increased revenue Increased profits Expanded client base Expanded service offerings
Smallholder farmers	Persistent poverty Food insecurity Lack of inputs and mechanized equipment Low yields High levels of migration to cities	Access to credit for inputs Secure markets/off-takers Financial literacy Investments in school/housing	Increased sales Increased household income Improved food security

At the project outset, each of the above actors had the motivation to reach the desired outcomes above. However, most were unconvinced that deeper engagement in agricultural finance could get them there. They were also wary of making new investments in systems, processes, and technical competencies due to mistrust of other actors in the system, and a legacy of failed attempts at change. The U.S. government's (USG) funds served as seed capital to de-risk an initial proof of concept.

Palladium's implementation and communications approaches to USAID FinGAP were designed to convince both FIs and BAS providers that serving agribusinesses was a profitable business opportunity. The strategies used spurred competition among these actors to innovate and serve clients through targeted products, services, and new approaches, thereby sparking replication and scaling throughout Ghana's agrifinance system.

As shown in the graphic below, USAID FinGAP's interventions helped restructure the market for agribusiness finance and business services, drawing both FIs and BAS providers into this market, and strengthening commercial relationships between lead firms and smallholder farmers to the benefit of all system actors.

Figure 2: **Ghana's Current Agrifinance System**



NEW VALUE CREATION IN THE SYSTEM

USAID FinGAP created new value benefitting all participants in the market system through a number of different strategies. Three principal processes, however, had the greatest impact:

1. Realigning incentives for improved market functioning, thereby changing the way actors approach the agrifinance and business support services sectors;
2. Improving knowledge and skills of actors in the system to work differently and interdependently; and
3. Building mutually beneficial partnerships and expanding business relationships.

KEY PROCESS #1: REALIGNING INCENTIVES FOR IMPROVED MARKET FUNCTIONING

Prior to USAID FinGAP, both FIs and BAS providers struggled to realize the growth and profit potential of the agriculture sector because they were not incentivized to invest in new service models that would allow them to meet agribusiness needs. To change this dynamic, USAID FinGAP designed a two-pronged, PfR approach to address both the supply- and demand-sides.

Incentivizing market for BAS provision. On the demand-side, the project mobilized 56 Ghanaian BAS providers, and placed them on performance-based-contracts (PBCs) to identify, package, and present investment opportunities to prospective investors. BAS providers were paid success fees upon meeting targets for project identification, structuring, and reaching financial closure. The project carefully structured performance fees, paying the lowest amount needed to close transactions to avoid market distortions and leave room for client agribusinesses to also pay for services so they had "skin in the game," and lowering the amount of project-financed success fees paid to firms by the USG over time. At first USAID FinGAP played a very hands-on role assisting BAS providers by identifying pipeline, providing TA, and helping them develop a track record of success. By June 2018, BAS providers in the project's network had facilitated $45.1 million in financing for 529 clients. As one BAS provider put it, "agribusinesses are now more open and interested in receiving [our] services, because they know we will deliver." BAS providers also generated value for FIs, by identifying new clients and lowering FI transaction costs by preparing high-quality loan applications for their consideration.

Stimulating increased lending and investment. USAID FinGAP designed a parallel PfR incentive for FIs to encourage expanded lending to the target agribusiness sectors of maize, rice, and soy. The project competitively selected 39 private Ghanaian FIs (commercial banks, savings and loans, RCBs, microfinance institutions, equity investors, and other NBFIs) and placed them on performance-based grants. FIs invoiced USAID FinGAP upon achieving increased lending outcome targets, motivating a focus on results and ensuring efficient use of project funds—grants resources were not spent if lending results were not achieved. After four years, the FI grants directly mobilized a total of $135.5 million released in new, incremental financing to agribusinesses in the maize, rice, and soy value chains.

The FI grants were designed with maximum flexibility – meaning the project did not mandate how FIs had to utilize grant funds. Partner FIs attest that this was a

FI Testimonials on PfR Grants

"The grant bridged the gap: it was a motivation for us. With the grant, we were made to use our own money. And we could see our perception that agric. lending is risky was not true."

Kintampo Rural Bank

"The grant came at the right time at the initial stage, when it was most critical to have evidence to convince the bank's board."

Builsa Community Bank

"The grant and training motivated us to go into agric. lending."

Microfin Rural Bank

"The Grant cushioned our institution to buy assets for monitoring. It helped to leverage some costs. Some things we would not have done."

Sinapi Aba Savings and Loans

critical success factor, giving FIs the "breathing room" to make needed, internal changes to expand their lending portfolios into new economic sectors and geographies, and to mitigate both the risk and cost associated with rapid portfolio expansion. FIs used the grants for varied purposes. For example, after learning more about agricultural value chains, and recognizing that limited access to mechanized equipment resulted in clients plowing late, which affected yields and thus repayment, one FI, Tumu Cooperative Credit Union (TCCU), used the grant to acquire a tractor and a thresher. TCCU's clients are now able to access this equipment at below-commercial rates. Another FI, Builsa Community Bank Limited, used grant funds to open up a new branch in a rural area which had never before had the presence of a formal financial institution, thereby giving thousands of previously unbanked farmers access to financial services. Other FIs purchased motorbikes or vehicles for increased loan monitoring and credit supervision, funded training for staff on agricultural lending, instituted staff bonuses for reaching new clients, and invested in new product development.

KEY PROCESS #2: IMPROVING SKILLS AND KNOWLEDGE OF SYSTEM ACTORS

Value was also generated in Ghana's agrifinance system through FI and BAS provider skill building and knowledge transfer. As USAID FinGAP incentivized increased financing through PfR strategies, it simultaneously built the capacity of project partners so they could take advantage of these incentives. Over 9,000 hours of training and TA were given to 93 FI actors and 53 BAS providers over the course of the project, who collectively designed 31 new products for the agricultural market. Many USAID financing programs principally dictate bank training and loan product design as critical strategies in achieving lending results over less prescriptive PfR methodologies. As per FIs, these training and product development tools further contributed to their success in expanding lending, but the manner in which they were provided to FIs made a great difference in terms of FI acceptance and adaptation of these new skills and tools.

Demand-driven trainings for FIs. All FI trainings were demand-driven, meaning the banks themselves defined their training priorities, and requested support from the project on a rolling basis as needs were identified. FIs received both group and institution-specific trainings on a variety of topics, including agricultural value chain finance methodologies, financing agricultural machinery and equipment, customer relationship management, management information systems, environmental due diligence, gender and financial inclusion, and financial product development. Group trainings were valuable, as they enabled FIs to learn from each other. Institution-specific trainings provided by a local training firm, however, were found by FIs to be the most impactful, as they attracted participation from high-level bank management and allowed participants to openly discuss challenges and proprietary information without the presence of competitors. Project-supported FIs indicated that trainings led to improvements in the turnaround times for appraisal and approval, enabled increased loan disbursals, improved their monitoring of borrowers and agribusiness customer relationship management, and resulted in new financial product development targeted at lending to agricultural value chains.

One FI, TCCU, reports modifying all of their internal lending procedures due to USAID FinGAP's technical support. Through the project, TCCU gained a better appreciation of the time-sensitive nature of loan approvals for agribusinesses. After recognizing this, TCCU completely overhauled their approval process, which resulted in faster loan approvals—from around 1 month to between 3-7 days—and significantly lowered default rates. Another FI, Builsa Community Bank, reported that they accomplished in three years what would have taken 10 without USAID FinGAP.

New product development. BAS providers co-designed new loan products jointly with specific FIs on a demand-driven basis and based on actual opportunities present in the geographic catchment area the FI covered, rather than developing one loan product and then attempting to convince FIs of its uptake. For example, several FIs, including Success for People and Zenith Bank, launched new financial products that utilize 'tripartite agreements' between their bank, aggregators, and lead off-takers. Using this model enabled the FIs to lend to smallholders indirectly, with the aggregators and off-takers sharing the risk. The project supported other FIs, including CARD FNGO and TCCU to introduce or reformulate "cashless financing products" that have resulted in near zero defaults.

BAS capacity building. The project gave BAS providers formal training and capacity building in value chain finance, opportunity identification and development, deal initiation and closing mechanisms, financial analysis, facilitating equity investment, and listing agribusiness securities on capital markets, among other topics. BAS providers were invited to participate in group FI trainings, where they gained familiarity with FI lending requirements and broadened their professional networks, and were also provided BAS-specific trainings at quarterly network meetings. In addition, BAS providers received ad-hoc capacity building from the FinGAP team to help them improve service delivery. USAID FinGAP also encouraged BAS providers to develop business models for supporting women-led businesses, which were often neglected due to their smaller financing needs. As a result, BAS providers had considerable success expanding financing to female-led enterprises by 'bundling' female entrepreneurs involved in value chain activities into groups, thereby making them a more attractive customer of credit. BAS providers also received training on developing public-private partnerships to attract sustainable financing for value chain participants. Several BAS providers that previously had no exposure to agribusiness became so convinced of the market potential, that they became direct investors in their own agricultural ventures.

KEY PROCESS #3: BUILDING MUTUALLY BENEFICIAL PARTNERSHIPS AND BUSINESS RELATIONSHIPS

Given the fragmented nature of the agrifinance system in Ghana, one of the key opportunities for value creation was to forge formal partnerships between value chain actors, as well as strengthen informal relationships to get system actors working together, trusting each other, and understanding each other's needs.

Value chain partnership structuring. USAID FinGAP was not designed to work directly with smallholders – rather the project's objective was to channel investment into agribusinesses with direct linkages to smallholder farmers, thereby creating a "market pull" among those enterprises that could absorb smallholder production. However, the project team soon found out that increasing finance and investment to lead firms alone was insufficient to address the structural challenges that impeded both agribusinesses and smallholders from growing their businesses. For agribusinesses to grow they need to access sufficient raw materials in a timely fashion that meet their quality requirements, yet smallholder resource constraints inhibited their ability to invest in improving and expanding the size and yields of their farms. While another FtF program was designed to tackle this constraint, by strengthening linkages between smallholders and agribusinesses and improving agronomic practices, USAID FinGAP recognized the need to cultivate additional partnerships between producers and lead firms that invested backwards in their supply chains to improve the quality and reliability of their suppliers.

The project therefore incubated dozens of strategic partnerships that collectively unlocked financing at scale for thousands of actors in northern Ghana, and provided them with stable markets and a continuous supply of raw materials for processing. Through these partnerships, lead firms provided smallholders with inputs, credit, mechanization services, and extension support, and in turn smallholders were able to increase yields, income, and provide the lead firms with more, higher quality produce. For example, one partnership developed by a BAS provider between actors in the rice value chain— including a processor with an underutilized mill, a farmer-based organization called Shinkaafa Buni Rice Cooperative Association, and two financing partners—resulted in 1,125 smallholders supplying 8,000 tons of paddy during the 2017 farming season. As a result of the technical assistance, agronomic support, and financial inputs, participating farmers more than doubled their yields from an average 1.85 tons/ha to 4.45 tons/ha in just one farming season.

The project also used strategic partnerships to direct finance and investment into 'make or break' areas of the value chains, especially in areas overlooked by FIs. For example, access to mechanization services was identified as a priority constraint across the target value chains. To increase access to mechanized equipment, the project structured a partnership with AfGRI Ghana, a local John Deere affiliate, and two financial entities to jointly create a financing product. The project assisted a local microfinance institution (MFI) to obtain a concessional loan from DANIDA to give them the liquidity

Trial testing of a John Deere tractor accessed with financing from Sinapi Aba Savings and Loans they needed for this partnership, and a guarantee cover. John Deere also agreed to cover 4 percentage points of the interest charged on the tractor loan, and training and equipment warrantees. The partnership quickly resulted in over $1 million in financing for 56 SMEs. The John Deere affiliate reported a 20% increase in sales of tractors and accessories, and thousands of farmers were able to access mechanized services to expand land preparation and agricultural yields.

> "USAID FinGAP has given me the opportunity to diversify my business. My interaction and work with a wide range of value chain actors has given me a new dimension to providing quality service to SMiLEs who recommend me to others. We shall support BASPAG to grow and bring a lot of benefits to everyone."
>
> *Henry Myers, Business Finance Consultants Limited*

Expanding networks and business relationships. In addition to creating formal partnerships, the project also deliberately cultivated expanded relationships between agribusinesses, FIs, and BAS providers. The project held annual investment summits, as well as periodic "mini-summits" held closer to production zones, to stimulate networking between actors and transactions for enterprises with smaller financing needs, especially women. Frequent networking opportunities, joint trainings between FIs and BAS providers, and participation in industry events helped build trust between actors and increase understanding of the constraints and opportunities faced by their counterparts. BAS providers in particular said that USAID FinGAP's support expanding their business networks and increasing their exposure among potential clients were the most beneficial aspects of the project. The project also expanded relationships among BAS providers who now see opportunities to collaborate and jointly pitch new projects and learn from each other's experiences. This has culminated in the establishment of the BAS Providers Association of Ghana (BASPAG) by a group of BAS providers as a way to do joint marketing among new clients, continue skill building, and to ensure high-quality service provision to the agriculture sector after USAID FinGAP ends.

Business-to-Business metings during the launch of a seed loan program

The USAID FinGAP team also recognized the need for the financial sector to evolve to provide equity financing to agribusinesses at an even greater scale than debt provision principally through commercial FIs. As such, the team identified a set of BAS providers with equity and capital markets experience, and incentivized them to entice agribusinesses to choose equity over debt, and to consider listing their shares on Ghana's Alternative Market. Two BAS assisted two firms (Hords and Produce Buying Company) to list on the stock exchange, ultimately mobilizing $91.1 million in alternative capital. One deal (Produce Buying Company) also attracted the first ever pension fund involvement in an agribusiness deal, demonstrating that this could successfully be done in Ghana.

MEASURING THE ECONOMIC AND SOCIAL VALUE CREATED

USAID FinGAP was structured to measure outputs in the form of financing released to enterprises, clients supported to access BAS, and other high-level results to demonstrate that the project achieved its mandate of unlocking significant financing for agribusinesses in the target value chains. However, in order to assess whether the project affected sustainable change to the agrifinance system, it is important to understand the value that has accrued to all key actors supported by the project. In order for the changes to endure, these actors must see sufficient value over time to continue to do business differently after the project is no longer providing support. This case study presents quantitative data collected via interviews with agribusinesses, BAS providers, and FIs, as well as data collected through the project's end-line impact assessment for agribusinesses and smallholders.

ECONOMIC VALUE

The economic value created in the Ghanaian agrifinance system is summarized by stakeholder group below.

AGRIBUSINESSES[1]

In addition to the two firms that accessed $91.1 million in alternative finance on Ghana's capital markets, USAID FinGAP assisted 2,995 agribusinesses obtain $168 million in new financing, of which $126.5 million was in working capital and $41.1 million was in fixed capital investment. This financing enabled agribusinesses to expand and generate new revenue. In aggregate, project-supported enterprises achieved $565 million in new, incremental sales over the life of the project. The results presented below demonstrate the value created per agribusiness based on data for a representative sample of agribusinesses supported by the project.

> "Before USAID FinGAP, banks shied away from agricultural financing. Our engagement with USAID FinGAP has enabled us to access finance from a variety of sources to finance our operations."
>
> *Gladys Sampson, General Manager of Premium Foods Limited*

Indicator *(average per agribusiness)*	**Baseline**	**Endline** *(2018)*	**% Change**
Acreage under production	36.6	71.8	96%
Investment in seeds	$382	$4,933	1191%
Investment in fertilizer	$1,923	$4,966	158%
Irrigated land (acres)	13.5	57.9	329%
Full time employees	7.3	13	78%
Expenditures per month on hired labor	$77	$563	631%
Purchases from smallholders (# of SHF)	22	120	445%
Gross revenue	$15,149	$19,708	30%
Annual profits	$9,215	$8,891	-3.5%

1 Data provided by the internal end of project performance evaluation, a methodologically rigorous assessment with a sample frame of 642 small, medium, and large enterprises supported by FinGAP, stratified by size and geographic region. The same enterprises were surveyed in 2016 for the project's mid-term performance evaluation.

Financing facilitated by USAID FinGAP enabled agribusinesses to double acreage under production, expand purchase of inputs, and hire additional labor needed to increase agricultural yields. Between 2013 and 2018, agribusinesses greatly expanded their average annual expenditures on seeds (by over 1000%), and more than doubled expenditures on fertilizer. Producer enterprises also made significant investments in irrigation systems, tripling their acres of land under irrigation. Businesses across all categories and sizes expanded their numbers of full-time, part-time, and temporary employees, as reflected in monthly labor expenditures increasing more than seven fold. On average, each agribusiness surveyed created almost six additional full-time jobs between 2013 and 2018. Agribusinesses also expanded the number of smallholder farmers in their supply chains, which had a substantial impact on smallholder sales and profitability (discussed in the section below). Each enterprise purchased inputs from an average of 120 smallholder farmers in 2018, up from just 22 in 2013.

Input providers benefitted most from expanded financing offered under USAID FinGAP, receiving 47% of all financing facilitated. See Figure 3 below for a summary of financing recipients under the program.

Gross revenues across all agribusinesses increased by 30%. Agribusinesses in the maize value chain were extremely successful in generating new revenue, with an average 360% increase in sales per enterprise. Average annual profit per enterprise decreased by 3.5%; however, there is significant variability in profit depending on firm size. Large enterprises enjoyed a 96% increase in profits, while profits for small enterprises decreased by 10%, and profits for medium enterprises decreased by 56%. SMEs made significant investments in inputs and equipment to expand operations over the last year, which cut into their overall profitability. It will take time for these firms to see returns on their investments, but as productivity increases, we expect that revenues and

Figure 3: **Financing Facilitated by Type of Agribusiness**

INPUT DEALER
Value of Finance: **$78,243,836**
Number of Transactions: **63**

OUTPUT PROCESSOR
Value of Finance: **$35,501,935**
Number of Transactions: **204**

AGRICULTURAL PRODUCER
Value of Finance: **$32,286,275**
Number of Transactions: **1,396**

TRADER
Value of Finance: **$16,062,085**
Number of Transactions: **1,640**

OTHER
Value of Finance: **$4,972,573**
Number of Transactions: **36**

profits will also grow. These agribusinesses agree: 98% of firms surveyed reported that they are very optimistic that their businesses will thrive and grow after USAID FinGAP ends.

SMALLHOLDER FARMERS[2]

Indicator *(average per agribusiness)*	**Baseline**	**Endline** *(2018)*	**% Change**
Percent receiving loans	9%	40%	344%
Investment in fertilizer	$169	$212	25%
Maize produced (100kg bags)	19.4	24.2	25%
Rice produced (100 kg bags)	19	23	21%
Soy produced (100kg bags)	8.4	9.3	11%
Average annual gross revenue	$523	$823	57%
Average annual profit	$244	$425	74%

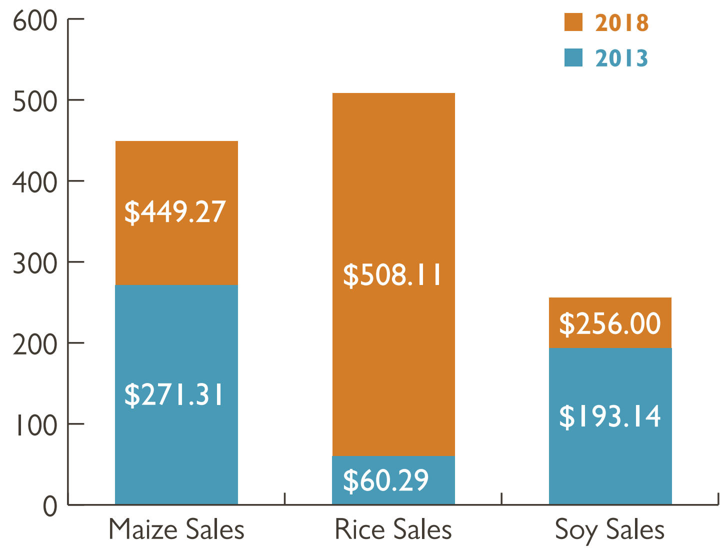
In 2018, 40% of the smallholder farmers linked to USAID FinGAP-supported agribusinesses reported receiving a loan within 12 months—a substantial improvement from just 9% in 2013. Of all smallholders surveyed, 44% report a moderate strength or strong commercial relationship with an agribusiness lead firm, defined as having a pre-determined purchase agreement, receiving pre-financing of inputs or integrated technical support, or some combination thereof.

Access to financing allowed smallholders to expand purchase of critical inputs, including seed and fertilizer, to increase production. Financial inputs, embedded value chain relationships, and agronomic support enabled smallholder farmers to increase production volumes across the three value chains, and sell their produce at 15% higher prices. On average, smallholder farmers produced 25% more maize, 21% more rice, and 11% more soy in 2018 than they did in 2013.

As a result, smallholder farmers achieved a 57% increase in annual gross revenue, and a 74% increase in annual profits. Expanded financing helped smallholders increase maize sales by 66%, rice sales by 743% and soy sales by 33% (see Figure 4 on following page).

2 Data for smallholder farmers is also taken from USAID FinGAP's internal end of project performance evaluation. The sampling frame included 50,655 farmers with whom the 642 enterprises were working

Figure 4: **Average Increase in Smallholder Farmer Crop Sales**



BAS PROVIDERS[3]

Indicator *(average per BAS provider)*	**Baseline**	**Endline** *(2018)*	**% Change**
Total number of clients across all sectors	8	71	788%
Number of agriculture clients	5	49	880%
Percent female clients	5%	19%	280%
Revenue from agriculture clients	$66,680	$134,426	102%
Revenue from rice, maize and soy clients	$25,826	$57,120	121%
Increase in agriculture network	---	---	96%
Increase in deal pipeline	---	---	93%

On average, BAS providers increased their annual client bases almost eight-fold, with the vast majority (69%) of new clients working in agriculture. BAS providers nearly quadrupled their number of female clients after partnering with the project, with the percentage of female clients increasing from 5% on average to 19% on average by 2017.

3 Includes data for 14 BAS providers that participated in the assessment. To establish the baseline, BAS providers were asked to provide data for the year prior to beginning work with USAID FinGAP.

> “USAID FinGAP has put us on a pedestal that did not exist before. Since 2015, value for my business increased more than it had over the past 9 years combined.”
>
> *Solomon Bondzi Quaye, Solutions Consulting Group*

Average revenue generated from agriculture clients doubled from the year before BAS providers began working with USAID FinGAP through 2017. Interestingly, less than half of the new agriculture-generated revenue was obtained by supporting clients in maize, rice, and soy. This indicates that BAS providers are finding new business clients outside of USAID FinGAP-supported agribusinesses, for which they do not receive PfR incentives. In other words, the incentives served their intended purpose of stimulating the market for agribusiness financial consulting services.

BAS providers emphasized that expansion of their professional networks was the most valuable service provided by the project. BAS providers report nearly doubling their number of professional contacts in the agriculture sector by 2017. They also nearly doubled their annual deal pipelines since beginning work with the project.

FINANCIAL INSTITUTIONS[4]

In aggregate, FIs surveyed for this case study loaned $199.7 million to maize, rice, and soy agribusinesses in 2017, an 80% increase over the total financing issued to agribusinesses the year prior to partnering with USAID FinGAP. Total financing to these agribusinesses increased 160%, from $23.4 million to $60.8 million

Aggregate financing	Baseline	Endline *(2018)*	% Change
Total agric loans	$111.2M	$199.7M	80%
Total maize, rice, soy loans	$23.4M	$60.8M	160%

FIs financed double the number of agribusinesses in 2017 than they did before they began receiving project support. For commercial banks, the magnitude of change is striking: these banks saw a 395% increase in agriculture clients (from 259 to 1,282 on average). RCBs and MFIs, which were already starting with a larger pool of agriculture clients than commercial banks, increased their annual agricultural client base by 74% (from 3,115 to 5,406 on average). The total number of maize, rice, and soy clients financed by FIs increased by 257% (from 642 to 2,290). For RCBs and MFIs participating in the project, nearly all new agriculture clients were in the maize, rice, and soy value chains.

Indicator *(average per BAS provider)*	Baseline	Endline *(2018)*	% Change
Number of agriculture clients	1705	3436	102%
Number of RMS clients	642	2290	257%
Percent female clients	24%	34%	42%
Percent agriculture clients in total loan portfolio	14%	22%	57%
Percent RMS clients in total loan portfolio	7%	14%	100%
Agricultural lending as percentage of total lending	6%	13%	117%
Average increase in value of agriculture portfolio[6]	---	---	277%

4 Includes data for 19 FIs that participated in this assessment. These FIs, which partnered with the project on a rolling basis, released 86% of all financing facilitated by the project between 2014 and 2017. To establish the baseline, FIs were asked to provide data for the year prior to beginning work with USAID FinGAP. The endline was set at 2017, the last year for which FIs have consolidated data. Note: FIs were asked to exclude data for cocoa when reporting on their agricultural financing portfolio.

Indicator *(average per BAS provider)*	**Baseline**	**Endline** *(2018)*	**% Change**
Average increase in value of RMS portfolio	---	---	1074%
Agriculture NPL rate	11.6%	8.5%	-27%
RMS NPL rate	11.8%	4.8%	-59%
Loan turnaround time (days)	49	22	-55%
Increase in revenue from agriculture portfolio	---	---	303%

Since FIs have a finite amount of resources for lending, it is useful to examine the allocation of funds within their portfolios to see how practices have shifted. Prior to USAID FinGAP, female clients accounted for 24% of all clients in FI loan portfolios. By 2017, FIs had improved the gender balance of their lending portfolios, with female clients accounting for 34% on average. FIs increased the relative proportion of agriculture clients to total clients across all sectors, from 14% to 22%—or nearly a quarter of all clients. FIs that partnered with USAID FinGAP more than doubled the percentage of their lending portfolios dedicated to agribusiness (from 6% to 13%). They also doubled the percentage of maize, rice, and soy clients in their portfolios, from 7% to 14%. RCBs and MFIs in particular, made a significant shift in lending to clients in staple food value chains, moving from 10% of all clients in these value chains, to 23% of all clients as of the end of 2017.

On average, FIs saw a 277% increase in the value of their agriculture portfolios; commercial banks achieved a 127% increase, and RCBs and MFIs achieved a 390% increase. FIs increased the value of their maize, rice, and soy portfolio by over 1000%, illustrating the magnitude of change in how FIs view staple food enterprises as a viable, and profitable business segment.

In terms of new value generated through operational improvements, FIs surveyed for this case study reduced non-performing loans in their agriculture portfolios by 27% - from 11.6% to 8.5%. Non-performing loans for maize, rice, and soy enterprises, specifically, decreased by 59% - from 11.8% to 4.8%. This demonstrates that FIs learned to identify good agricultural financing deals, as well as the value BAS providers offer to FIs by funneling good deals and supporting loan repayment. Commercial banks reduced their NPL rates for maize, rice, and soy transactions by 36%, from 10.3% to 6.6%, while RCBs and MFIs achieved a 69% reduction in NPLs, from 13% to just 4% in 2017. FIs cut their loan processing time in half, from 49 days on average to 22. Lastly, FIs report that in

5 *USAID FinGAP Final Report.*

2017, they achieved four times the revenue from their agriculture portfolios than they did the year prior to partnering with the project.

SOCIAL VALUE

In addition to the economic value generated for each of the key stakeholder groups above, the project also created social value, which mainly accrued to smallholder farmers and agribusinesses:

> "With benefits from Bonzali Rural Bank, as a result of financial support to expand our farms, I am now able to send my children to school, and when they return from school and tell me what they learned at school, it gives me and my husband great joy and hope. Indeed, as a mother, I am always delighted when my children are happy, and school is one thing that makes my daughter and son very happy. We are very grateful."
>
> *Female smallholder and group loan recipient*

- **Women's empowerment**. USAID FinGAP helped stimulate financing to women at every level of the maize, rice, and soy value chains. By the end of the project, 1,231 women-led businesses accessed financing directly through the program, and 72,225 women accessed financing and other agribusiness supports indirectly through other actors that received loans and investment from FIs. Although gender gaps persist, such as lower average loan sizes and lower levels of economic power, the project made significant strides in helping women take greater control over economic assets and decision-making. By the end of the project, 60% of all agribusinesses reported increased participation of women in decision-making roles in management and board structures.
- **Food security**. USAID FinGAP's financing support to firms and farms meant that fewer vulnerable families in Northern Ghana suffered days without eating (from 6.4% in 2013, to 4% in 2018). In the Upper West region, which has the highest concentration of food insecure families, the proportion of smallholder farmers that went without food decreased from 3.7% to just 1.2% since 2016.
- **Job creation**. USAID FinGAP's end-of-project performance evaluation found that on average, each agribusiness surveyed created six additional full-time jobs due to the financing they received and their resulting business expansion. While the project did not measure job creation formally as this was not a stated project objective, we estimate that the 2,995 agribusinesses supported by the project created upwards of 17,900 jobs as a result of their participation in USAID FinGAP.
- **Improved quality of life**. Smallholder farmers have enjoyed increases in gross revenues and profits thanks to USAID FinGAP, which enabled them to make home improvements – from new roofs and floors to sanitation systems – that have enhanced their quality of life. In 2018, 43% of smallholders reported that they were able to make

improvements to their sanitation facilities, 25% reported improved access to water, and 75% reported improved access to electricity.

- **Household investments**. Smallholder farmers report that within the last three years they have increased their savings, investments in education for both boys and girls, and expenditures on healthcare for their families. Through expanded financing, USAID FinGAP ultimately helped 169,000 farming families in Northern Ghana improve their economic lives and wellbeing.

SUMMARY CONCLUSIONS AND LESSONS LEARNED

This case study demonstrates several levers that can be used to reorient a market system to the benefit of all actors. By realigning incentives for improved market functioning, building the knowledge and skillsets of system actors to work interdependently, and cultivating mutually beneficial partnerships and relationships, USAID FinGAP generated new economic value that was broadly shared among key actors in Ghana's agrifinance system.

By incentivizing FIs with PfR strategies to dramatically scale agricultural financing while supporting improved loan recovery, USAID FinGAP helped FIs experience the viability and profitability of financing agriculture at scale. This resulted in sustainable transformation of the country's market for agricultural finance. FIs that partnered with USAID FinGAP more than doubled the share of their lending portfolios dedicated to agriculture, and all FIs save one said they will continue increasing their agricultural lending after USAID FinGAP ends. In the words of one bank representative, "Agribusiness lending is here to stay."

USAID FinGAP successfully motivated BAS providers to diversify their clientele to include agribusinesses, and created demand for BAS by helping BAS providers demonstrate the value of their services to agribusiness firms. BAS providers are now billing differently, they have opened new offices in agricultural production areas, they have hired new staff, and they clearly see the agriculture sector as a source of consulting revenue. BAS providers supporting downstream clients, closer to processing and farther from agricultural production, with financing needs above $200,000 report being most likely to continue to provide agribusiness financing consulting. Continued BAS for the smallest and most vulnerable actors requiring just a few thousand dollars in financing, however, may likely require continued donor support, given the limited profitability in serving this segment of the agriculture sector.

WHAT REMAINS TO BE DONE

The USAID FinGAP team estimates annual agribusiness financing demand in Ghana at $2 billion. With thousands of agribusinesses still facing challenges to growth related to access to finance, there is significant room to expand upon the strategies employed by USAID FinGAP to continue to chip away at this demand while generating new and broadly-shared value. Actors in Ghana should use the lessons from USAID FinGAP to scale-up successful strategies, focusing future support on the key areas outlined below:

- USAID FinGAP essentially functioned as a small fund, providing capital at 0% interest along with intensive technical assistance to FIs and BAS providers to expand financing to Ghana's agriculture sector. The project ultimately leveraged $22 million of USG resources to generate more than $200 million in new, private agricultural financing. The project model has the potential to be commercialized to generate scale in lending for agriculture and other sectors (such as health) across Ghana, throughout Africa, and other parts of the globe. Investors looking to make an impact could structure a blended finance vehicle based on the USAID FinGAP model, combining financing from donors, development finance institutions, impact investors, and other commercial sources of capital, to lower the cost of capital for FIs. This, coupled with similar technical assistance strategies, could continue expanding value creation started under USAID FinGAP. Numerous underutilized guarantee instruments backed by USG, GoG, and a smattering of other bilateral donors could also be more effectively leveraged to increase investor comfort in such a vehicle, with the potential to achieve much greater scale than traditional interventions.
- While commercial banks have learned to embrace agricultural financing to SMEs, smallholder farmers still remain a "pariah" segment of the broader agrifinance system. Smallholder farmers still face significant constraints inhibiting their access to sufficient financing to invest in their farms to increase their yields and profitability. On the positive side, several RCBs (e.g. Kintampo Rural Bank), through USAID FinGAP support, have discovered the business model to expand financing to smallholder farmers profitably. As lack of smallholder finance continues to depress agricultural growth overall in Ghana, these positive experiences and profitable business models can be replicated by other RCBs and MFIs.
- High interest rates and the high cost of capital continue to hinder FIs' abilities to adequately meet demand for agricultural financing. With access to cheaper funds, FIs could lower their interest rates, enabling them to lend at lower rates and greatly expand their client base, especially among the "bottom of the pyramid" customers. This is especially critical for RCBs, which have started borrowing from commercial banks,

transferring high borrowing costs through each level of the supply chain for finance, disproportionately applied to the smallest agribusiness customers.

- USAID FinGAP had success in creating value chain partnerships to expand financing to agribusiness actors at scale, but there is more work to be done to meaningfully integrate smallholders into agribusiness supply chains through formal, contractual relationships. There is clear benefit in doing so. Holding all other variables constant, a strong commercial relationship with a lead firm buyer increases a smallholder farmer's average profit by GH¢ 1,824 (p=0.019)[6].
- While USAID FinGAP had significant impact on access to financing for women connected to the program, much work remains to meet financing demand among women-led firms. FIs targeting women still are largely undercapitalized, and the majority of Ghana's FIs still do not buy into the concept of gender-intelligent banking, continuing to insist their lending is gender-neutral and missing the large growth opportunity of more aggressively targeting female customers.
- Agribusinesses remain vulnerable to numerous shocks and threats, including drought, floods, crop diseases, and pests. Agribusiness financing would greatly benefit from further development of the agricultural insurance industry, including sustainable capitalization of GAIP, as well as policy reform to enable competition in this space. Another important risk mitigation tool required is low cost irrigation, which can significantly transform smallholder production levels, while reducing risk in areas prone to drought or inconsistent rainfall.

Ultimately, USAID FinGAP should be seen as a case study in using PfR methodologies to begin a change process sorely needed in Ghana's agrifinance market system. Our hope is that this case study will further illuminate the social and economic value created to motivate other countries, donors, implementers, firms, farms, and private investors to repeat this experience in other regions and sectors, as this replication has the potential to create new value throughout inefficient supply chains across the globe, simultaneously addressing endemic poverty and food insecurity.

6 *USAID FinGAP end of project performance evaluation*