Stephanie Hanson

The Case for Farm Finance

When you enter Wilbroda Nafula's living room in rural western Kenya, you might be surprised to see three solar lamps, all charging cell phones. Wilbroda, a Kenyan farmer and mother of three, doesn't advertise her business with a sign outside her home. She doesn't even live close to other shops or at the village center. But word has spread among her neighbors that she has a cell phone charging business, and there is plenty of demand for her services.

"I tell you, in this mobile phone business, I eat well!" says Wilbroda, laughing aloud.

Just four years ago, Wilbroda wasn't eating well, and neither was her family. Her only source of income was the maize she harvested from a half acre of land, and she was never able to harvest enough maize to feed the family through to the next harvest.

In 2011, she decided to take a seed-and-fertilizer loan to try to improve the production on her land. Along with the loan, she received training on correct agriculture practices, including food storage and market price fluctuations. That year, she produced an excellent harvest, stored enough food to feed her family, and started saving money to replace the roof on her house. By 2013, she had replaced her roof, invested in chickens, and purchased her first solar light. By 2014, she had a calf, a second solar light, and enough money to put her children in private primary school. This year she purchased her third solar light, and she's planning to expand her poultry business.

Wilbroda is like hundreds of millions of smallholder farmers all over the world,[1] with one critical difference: the agriculture loan she received in 2011 changed the trajectory of her life. She is now part of the tiny percentage of smallholder farmers who have access to finance.

Smallholder farmers are the largest group of people living in poverty, and they are also the most financially excluded.[2] Roughly 70 percent of the world's poor are farmers, and the majority of them are unbanked. These 500 million farmers are in turn supporting as many as 2.5 billion people.[3] Although most smallholder farmers are struggling to produce enough food, they have the potential to produce dramatically more. The Global Yield Gap and Productivity Atlas, developed by the Daugherty Water for Food

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Institute at the University of Nebraska and Wageningen University in the Netherlands, estimates that crop yields in Sub-Saharan Africa are 70–90 percent below their potential,[4] the largest yield gap in the world.

Reducing the yield gap in Africa will boost global food production, but it will also have a dramatic effect on the continent's poverty levels. Agriculture growth has been demonstrated to be as much as 3.2 times [5] more effective than non agriculture growth at reducing extreme poverty in low-income countries.When farmers increase their incomes, they spend it locally. Agrodealers, seamstresses, furniture makers, motorbike drivers, and health workers all benefit. These individuals then spend their increased incomes, perpetuating a cycle of consumption that benefits all actors in the rural economy.

If we seek to end hunger by 2030, as articulated in the Sustainable Development Goals,[6] if we seek to reach global financial inclusion by 2020,[7] or if we seek to make significant gains in economic growth in developing countries, we must target smallholder farmers. They sit at the intersection of our ambitious global food security, financial inclusion, and economic growth targets. If smallholder farmers are able to unlock their potential, they will be a "triple threat," collectively driving progress on global food security, financial inclusion, and economic growth. If they remain neglected, progress will stall. Given the strategic importance of smallholder farmers, the world should be laser-focused on how to provide them with the tools they need to move from subsistence farming to sustainable livelihoods. Therefore, the single most important tool we can offer them is farm finance.

THE TREMENDOUS UNMET DEMAND FOR FARM FINANCE

Although the global microfinance sector has seen tremendous growth in the last two decades and is now estimated to reach about 200 million clients,[8] microfinance has largely missed the opportunity to reach smallholder farmers. Of the estimated global demand of $450 billion for smallholder finance, only about 3 percent is being met.[9] To illustrate the magnitude of the supply gap, total bank lending to the agricultural sector is 25 times higher than the supply of lending to smallholder farmers.

Two major narratives explain why there isn't a greater supply of financing for smallholders. One narrative focuses on the inherent riskiness of agricultural lending. Smallholder farmers have limited assets to offer as collateral.[10] They are engaged in a business that depends on the vagaries of the weather, and climate change is predicted to increase the frequency of extreme weather events (both droughts and flooding). Even if they produce bumper crops, smallholders are also subject to the fluctuations of local, regional, and global market prices for the crops they produce. All of these observations about smallholder farmers are true. But none of these risks is insurmountable, and most of them can be mitigated through good loan product design.[11]

The second narrative concentrates on the complexity and cost of delivering products and services to smallholder farmers, who are generally located in deep rural areas with relatively low population density. Loan products, processes for underwriting, and

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the knowledge required of loan staff are all more complex for farmers than for urban clients. Banks and microfinance institutions (MFIs) typically do not have branches in rural areas, and deploying a loan officer from an urban branch to reach clients in a village is expensive. Rural roads are often in poor condition, which makes reaching rural clients time-consuming—another source of increased overhead for a financial institution.

From the farmer perspective, traveling to a distant bank branch is cost prohibitive. In Tanzania, for example, there are fewer than 0.5 bank branches per thousand square kilometers, and 47 percent of unbanked individuals[12] cite distance from a bank as a primary reason for not having an account. Advances in digital finance, particularly mobile money, show promise for driving down transaction costs in the long term, but until the agent network infrastructure improves,[13] MFIs are unlikely to adopt digital finance at scale. In the meantime, several institutions have developed low-tech operating models that reach smallholder farmers cost effectively.

This second narrative is also true. And yet, both narratives are inaccurate in their magnitude. Agricultural lending is risky—but it's not as risky as banks think it is. It's challenging and costly to reach smallholder farmers—but it's not as hard or as expensive as microfinance institutions think. Market innovators have figured out how to lend to smallholders, and their successes can teach the broader sector how to develop new farm finance products, and how to scale up those products.

LOW TECH, HIGH TOUCH, SCALABLE

One of those market innovators is One Acre Fund, an agricultural organization with 300,000 smallholder farmer clients in Kenya, Rwanda, Burundi, and Tanzania. One Acre Fund started in 2006 in Kenya, and it has grown to its current size by offering farmers a loan product that addresses their major challenges: lack of access to seed and fertilizer, financing, training, and market facilitation. One Acre Fund targets the poorest smallholder farmers: those with fewer than five acres of land, who primarily grow staple food crops, and have historically experienced a "hunger season." Its repayment rate is 99 percent.

One Acre Fund has overcome the "risk" narrative and the "cost and complexity" narrative by carefully designing its loan product (and iterating on that product over time), and creating an efficient, scalable operating model. Although some features of a One Acre Fund loan are similar to a traditional microfinance loan, many are unusual. Instead of lending cash, One Acre Fund lends assets such as seed and fertilizer. Providing farmers with assets ensures that the loan is used productively and for the intended purpose. It also allows for quality control of the seed and fertilizer.

Other aspects of the loan also differentiate it from a traditional microloan. It has a flexible repayment structure and a term that is tailored to the agriculture season. In Kenya, the loan term begins in December, a few months before planting, and ends in September, a few weeks after harvest. In Rwanda, there are two loan disbursements per year, timed with the two growing seasons. During the loan term itself, instead of

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making a fixed weekly or monthly payment, clients are able to pay any amount of money at any time during the season. This structure works well with the irregular income streams of most farmers. A Kenyan client might pay $5 at the end of March, not pay for six weeks, and then pay $10 in mid-May after selling a small vegetable crop.

Finally, One Acre Fund pairs its loans with training that is delivered at the village level by full-time staff. These staff members, called "field officers," function as a combination loan officer and agriculture extension agent. They manage a loan portfolio of about 150 clients, and they deliver regular trainings throughout the season on best agricultural practices. These trainings are offered in the fields where farmers work, and they are designed so that farmers can practice the new techniques in small groups. Farmers receive immediate feedback from the field officer on whether they are implementing the technique correctly.

The unique features of One Acre Fund's loan product mitigate risk, but more importantly, they increase the impact of the loan for the client. In 2014, clients saw a 58 percent increase[14] in income, which was equivalent to $128.13. For farmers living on less than $1 day, $128 is a substantial amount of money. It's enough to pay school fees, purchase chickens or goats, or diversify into a new agricultural crop or a non-agricultural income-generating activity.

Extrapolating from its historic growth trajectory, One Acre Fund plans to reach one million farmers by 2020. It has been able to scale rapidly by using a standardized operating model that can grow to new areas within its existing country operations ("growing in"), and to completely new countries ("growing out"). Its operating model was developed to mirror the structure of for-profit businesses like McDonalds and Starbucks, which have grown rapidly by opening standardized retail outlets around the world. One Acre Fund has a "district operating unit" that can be replicated easily and cost-effectively. Each unit includes a field director (who manages the district of operations), 6–10 field managers, 30–50 field officers, and a bookkeeper. At scale, a district can serve about 10,000 farmers. Each district within a country operation uses the same procedures for repayment collection, training, and delivery of seed and fertilizer. As a country operation grows larger, it realizes economies of scale, and the cost of serving an individual client goes down. Currently, One Acre Fund covers 74 percent of its field operating costs through farmer loan revenue. The most sustainable country operation, Burundi, covered 98 percent of its field operating costs in 2014.

OTHER INNOVATIVE MODELS

One Acre Fund has pioneered a method to successfully offer farm financing to the poorest smallholder farmers in East Africa. Other organizations have developed farm finance products that utilize some of the same principles to overcome the "risk" and "cost and complexity" narratives.

Three core principles recur across successful farm finance products: flexible financing, improving productivity, and building ecosystems. While not all products adopt all three principles, whether a product does or not is often related to the operating

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environment and the agriculture ecosystem in that geographic area. Flexible financing is the most common principle. Angkor Mikroheranhvatho Kampuchea Microfinance Institution Plc. (AMK) in Cambodia is an excellent example of how tailoring loan products to the needs of farmers can lead to significant scale. AMK has more than 200,000 smallholder clients and an agriculture portfolio of about $56 million. AMK is consistently profitable, though its average loan sizes are quite small. It offers bullet loans that only require repayment at the end of the term, as well as line-of-credit loans. Farmers can choose between individual and group loans, repayment in the field or at the branch office, and even the currency of the loan (USD or local currency). This flexibility works in Cambodia because there is a healthy market for farm inputs (primarily seed and fertilizer) that clients can easily access.

Many successful farm finance products focus on improving productivity. Opportunity International in Ghana partners with farm input providers so that it can transfer loan amounts directly from client accounts to input providers to purchase seed and fertilizer. Ghana is one of the most successful countries in which Opportunity International offers a farm finance loan product. Another MFI that focuses on productivity is Juhudi Kilimo, which lends productive assets in Kenya such as livestock and greenhouses. It takes measures to make sure that farmers receive a good return on investment for their asset, including selecting high-quality livestock breeds and testing different models of greenhouses before determining which one to lend.

A third core principle, ecosystem building, is best exemplified by BRAC in Bangladesh. BRAC offers financial services to more than four million clients, of which about 320,000 are taking an agriculture-specific loan called Borga Chasi. The agricultural ecosystem has been strengthened by BRAC's creation of two businesses: one that provides high-quality inputs to farmers, and the other that offers a reliable and fair price to smallholder dairy farmers.

Other organizations such as myAgro in Mali and Senegal, and Première Agence de Microfinance in Burkina Faso, are innovating farm finance products that have the potential to scale to significant numbers of smallholders. However, the farm finance market is still nascent. To move from meeting less than 3 percent of market demand to even 15 percent of market demand will require the continued efforts of individual institutions, as well as new sector-level initiatives.

BUILDING THE FARM FINANCE MARKET

Existing sector-level efforts to build the farm finance market have prioritized two areas: research to understand current farm finance supply and barriers to increasing supply, and research to better understand the nuances of smallholders' financial needs.

The Initiative for Smallholder Finance[15] has led the first effort. Its reports, briefings, and infographics have been a tremendous contribution to our understanding of the market. The Consultative Group to the Assist the Poor[16] is leading the second area. The organization's research into people who keep financial diaries in Tanzania, Mozambique, and Pakistan will be a rich source of insights into the agricultural and

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non-agricultural financial needs of smallholders once it is complete in late 2015. A third sector-level effort, supported by One Acre Fund, seeks the intersection between the concerns of farm finance practitioners and the needs of their clients. This effort aims to increase knowledge sharing between practitioners about what works and what does not work in farm finance product implementation. It will bring practitioners together into a practitioner-led industry association that can convince other MFIs that farm finance is a viable business. Finally, it will engage in targeted operational partnerships to generate learning that has utility for the sector and increase the availability of farm finance products.

All of these sector-level efforts are valuable, but they fail to address two big gaps in the market. First, there is a dearth of grant money available for innovation and new business model development. In 2015, The MasterCard Foundation launched a "Fund for Rural Prosperity,"[17] with two funding windows: innovation and scale.The innovation window is well designed, but it needs a larger pool of capital: $50 million is a drop in the bucket, given the $443 billion supply gap. Donors should invest additional resources into growing the innovation window. Once the overall fund is larger, the number of submission calls per year should be increased (and, correspondingly, the volume of grantees).

Second, there is a lack of appropriate funding available to facilitate the initial scaling up of successful farm finance products. If you run a traditional MFI, there is no shortage of investors willing to offer you working capital at submarket rates to grow your portfolio. However, you are often required to make quarterly repayments after a short grace period (at best). This repayment structure makes it difficult to offer an agricultural product with a flexible repayment structure (such as One Acre Fund's) or a product with a lump-sum repayment (like AMK's).

After an initial pilot, farm finance practitioners need time to iterate and improve on their products before they reach a point at which it makes financial sense to accept market-rate working capital. In BRAC's model of "pilot, perfect, scale up," this is the "perfect" stage. Practitioners in this stage would benefit tremendously from a large pool of zero percent interest capital that is deployed by investors who have a strong appetite for risk and the willingness to do large deals (above $5 million). Think of it as the push that is needed to get a product perfect enough to scale up. In the early days of microfinance, this type of capital was available[18] to incubate institutions. K-Rep, for example, received $12 million from USAID in grant funding between 1984 and 1996 to experiment with its model. As the market has matured, this type of capital has become more scarce. The supply of farm finance is so paltry compared to the $450 billion demand, it would make sense to resuscitate some of these early capital structures,[19] like USAID's Implementation Grant Program,[20] specifically for farm finance.

THE FUTURE MIDDLE CLASS

Meeting smallholder needs for farm finance is first and foremost a tool to unlock agricultural potential in the least productive parts of the world. Once farmers can grow a

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surplus, they're able to transition from struggling through the hunger season to diversifying their incomes into new agricultural and non-agriculture business opportunities. Their spending on products and services can spur significant growth in businesses that serve the bottom of the pyramid, whether in health, energy, or education.

Wilbroda Nafula is a case in point. After she had produced enough food to feed her family, but before she started her solar light business, she had one top priority for investment: her children. In 2013, she put her daughters Anastansia and Aloisas into private school, and the next year she enrolled her son Dalmas.

"It's better to spend a lot of money but ensure that our children have a good foundation. In public schools, the teachers send the children home all the time, and they do not get personalized attention. A child can go to school and at the end of the day, he or she has not even been noticed by the teacher," says Wilbroda. "The first term that Aloisas and Anastansia joined private school, they were top of the class. I was happy and shocked at the same time. I therefore decided to work even harder to ensure they remain in private schools." Wilbroda is just like upwardly mobile mothers all over the world. She wants her children to have the best possible education and the widest array of choices for the future. Wilbroda might very well reach the middle class during her lifetime, but even if she doesn't, she'll do everything she can to make sure that her children do.

Those children are future middle-class consumers of one of the most vibrant economies in Africa. In 20 years, if they are gainfully employed—whether in agriculture or other sectors—they will be driving economic growth in consumer goods, manufacturing, health, technology, transportation, and agriculture.

Wilbroda and 500 million smallholder farmers sit at the nexus of our most ambitious global goals: end hunger, end poverty, and achieve financial inclusion. Farm finance is the tool that can unlock their prosperity—and our collective global future.

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