ISSUE BRIEF NO. 3

Investing in Resilience:

A Shared Value Approach to Agricultural Extension

EXECUTIVE SUMMARY

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Root Capital

Root Capital is pioneering finance for high-impact agricultural businesses in Africa, Asia and Latin America. We lend capital, deliver financial training, and strengthen market connections so that businesses that serve hundreds, and often thousands, of smallholder farmers can grow rural prosperity. Since our founding in 1999, Root Capital has disbursed more than $900 million in loans to 580 businesses and improved incomes for more than 1.2 million farm households.

Learn more at www.rootcapital.org and on Twitter @RootCapital.

We would like to thank the Citi Foundation and the Skoll Foundation for their generous support of this Issue Brief Series and more generally for their leadership in supporting the development of the smallholder agricultural finance sector.

The Citi Foundation supports the economic empowerment and financial inclusion of low- to moderate-income people in communities where Citi operates. The Skoll Foundation drives large scale change by investing in, connecting and celebrating social entrepreneurs and the innovators who help them solve the world's most pressing problems.

In addition, we extend our gratitude to the Barr Foundation and the Stichting DOEN Foundation for their leadership support of Root Capital's Climate-Smart Agriculture Initiative (CSA).

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Foreword: Creating Shared Value for Smallholder Farmers

No issue exemplifies the urgency and power of creating shared value better than the productivity and prosperity of smallholder farmers. The core idea of shared value, after all, is that we cannot solve problems such as poverty, food insecurity, and climate change without fully engaging corporations, and that corporations cannot continue to prosper unless they successfully address these issues.

Around the world, 450 million smallholder farmers grow 80 percent of the food in developing markets — despite realizing yields that are only a small fraction of the potential. Constrained by limited access to agricultural training, farm inputs, markets, and financial services, smallholders languish in this yield and income gap. Many resort to survival tactics such as slash-and-burn agriculture or illegal logging that degrade the environment and lead to a vicious cycle of ecological and economic impoverishment.

But that is only half of the story. The unrealized potential of smallholder farmers also limits the success of global business and society at large. The $7 trillion food and beverage industry — which includes many of the world's largest companies such as Danone, Mondelez, Nestlé, and Unilever — cannot continue to deliver the financial returns expected by their shareholders without tapping into smallholder productivity. More broadly for society writ large, our food supply must increase by 60 percent or more to feed the projected world population in 2050, an impossible goal without radically increasing smallholder yields and resilience to climate change. Governments and development agencies committed to achieving the United Nations Sustainable Development Goals will never succeed if they do not reach smallholders, who account for most of the world's extreme poor.

In short, the predicament of smallholder farmers reflects the interdependence between business and society that is the essence of shared value. The Shared Value Initiative and the nonprofit consultancy, FSG, that Professor Michael Porter and I founded, continue to work around the world to inspire, teach, and support corporations, governments, and NGOs in applying the principles of shared value to their own business and societal challenges.

Against this backdrop, Root Capital's issue brief on agricultural extension has rightfully focused attention on a critical point of leverage. As much as we would like to find a technical "silver bullet" to simultaneously increase smallholder yields across the globe, it will be the painstaking work of training and education, farmer by farmer, that leads to change at scale. Root Capital has an enviable track record of helping these farmers access credit. From that vantage point, I am very encouraged by their insights into how shared value approaches to agricultural extension can benefit smallholder farmers, supply chains, and the global communities that depend on them.

Mark R. Kramer
Founder and Managing Director, FSG
Senior Fellow, CSR Initiative, Harvard Kennedy School of Government

Foreword: Translating Climate-Smart Science into Action

The science is clear: climate change is coming. What is less clear is how climate change will impact specific farmers, supply chains, or countries over different time horizons, and how stakeholders should prepare for these impacts.

Indeed, one of the principal challenges of preparing for climate change lies in the temporal and spatial variability of its effects. We expect certain areas to see severe negative impacts in the short-term, while other areas may remain relatively stable for a longer period of time. To make informed decisions, public, private, and civil society actors need greater visibility into how these variable impacts will play out in different contexts.

The good news is that climate scientists can now predict with reasonable certainty the impacts of climate change on crops within a given area, looking over various time horizons. We can even describe the likely form of these impacts in terms of changes in temperature or precipitation patterns. This information can inform decision-making at the farm, supply chain, and ultimately landscape level to mitigate and prepare for this coming reality.

Information alone, however, does not drive action. Climate science must be translated into the day-to-day business of getting food from field to table, so that it can inform the operational priorities and strategies of stakeholders all along the chain. Often, this translation process requires targeted technical support and financing.

At the Climate Change, Agriculture, and Food Security (CCAFS) research program of the Consultative Group for International Agricultural Research (CGIAR), we are increasingly focused on how to facilitate this process. What organizations or individuals can bridge the gap between the climate science and farm-level change?

In this issue brief, Root Capital explores an important channel for distribution of information, technical assistance, and finance related to climate change mitigation and adaptation: small-and-growing rural enterprises. Root Capital describes how these businesses can help promote the adoption of climate-smart practices at the farm level, particularly in developing economies where public extension services are underfunded or non-existent.

From our perspective, this brief suggests one critical path to increasing resilience in smallholder supply chains globally — while recognizing that much remains to be done to identify which climate-smart practices to promote in different contexts, via what delivery mechanisms. Clearly more learning is needed to understand and foster the potential described here. Kudos to Root Capital for taking this first step on what promises to be a necessary and challenging journey with diverse partners. CCAFS looks forward to learning with you.

Mark Lundy
Agroenterprise Development Specialist,
The International Center for Tropical Agriculture

Credit: Carly Kadlec, Equal Exchange

Actors interested in building more resilient food systems can help agricultural enterprises overcome barriers to delivering effective extension, while influencing extension to be more climate-smart. In particular, we see an opportunity for global agri-food companies, financial institutions, and climate-focused funders to bring their complementary perspectives and resources to bear, joining the existing community of practice dedicated to strengthening smallholder extension.

Overview

Agriculture is "both a victim of and a contributor to climate change." As a global community, we need to reduce agriculture's contribution to climate change while building farmers' resilience to climate variability and preserving our natural resource base for the future. The Food and Agriculture Organization (FAO) captures these triple objectives under the term "climate-smart agriculture."

This issue brief focuses on scaling the use of climate-smart practices among smallholder farmers by working through local agricultural enterprises, such as farmer cooperatives or processors.

Aggregating hundreds or often thousands of dispersed smallholder farmers, these enterprises represent a significant, but often overlooked, channel for delivering "last mile" agricultural extension – that is, services that provide farmers with the information and skills they need to improve their farming practices. For instance, 86 percent of the over 280 enterprises receiving loans from Root Capital provide extension to their smallholder suppliers. Collectively, these enterprises source from more than half a million farmers in Africa, Asia, and Latin America.

In fact, these enterprises are often the primary or only source of agricultural extension for smallholders, due to historic underinvestment, and in many countries disinvestment, in these critical support services. Many agricultural businesses facilitate farmers' adoption of improved practices, including those considered climate-smart. In impact studies conducted by Root Capital, farmers supplying to enterprises we finance reported both significantly higher access to extension and higher usage of climate-smart practices than unaffiliated farmers with a similar profile.

By promoting the adoption of climate-smart practices, extension can create "shared value"[1] for entire supply chains:

1 Shared value is a business strategy focused on "creating economic value in a way that also creates value for society by addressing its needs and challenges." See discussion in Section 4 of the full report.

ENVIRONMENT

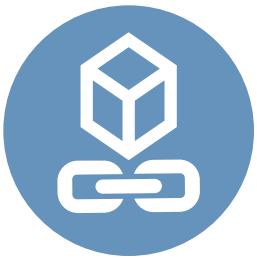
Extension can improve environmental health and adaptive capacity at the farm level while contributing to climate change mitigation at a landscape or global level.

FARMERS

Extension can increase farmer income by improving crop yields, quality, or farm resilience, with specific impacts dependent on the content and methodology of extension provided.

AGRICULTURAL ENTERPRISES

Extension can increase enterprise revenue and reduce risk by increasing product volume or quality, growing market share, or increasing supply security.



SUPPLY CHAIN PARTNERS

Extension can improve the security and traceability of supply for traders, processors, and retailers that purchase from the agricultural enterprise. In this way, extension can address multiple objectives related to procurement, corporate social responsibility, and climate-risk mitigation.

However, most agricultural enterprises in developing markets do not fully realize these benefits. Through interviews with Root Capital staff, borrowers, and partners, we identified four barriers to effective enterprise extension:

- **Knowledge:** Enterprises often do not know how to identify the needs of individual suppliers or tailor service delivery to meet these needs. In particular, enterprises require guidance on how to prepare their suppliers for a changing climate.
- **Supply chain dynamics:** In less formal supply chains, uncertain or inadequate supplier contract enforcement makes enterprises reluctant to invest in extension due to the risk of side-selling.[2] In more formal supply chains, unequal power dynamics result in some enterprises designing extension services to meet the needs of buyers or certifiers rather than smallholders.
- **Capital:** Enterprises underinvest in extension due to pervasive capital constraints in the smallholder agricultural sector, resulting in marginal changes at the farm level.
- **Talent:** Enterprises struggle to find and retain qualified and affordable extensionists, resulting in thinly stretched extension teams without the training or time to adequately address suppliers' needs.

This unrealized potential represents a missed opportunity, not just for individual enterprises and their suppliers, but for entire supply chains dependent on smallholder farmers.

Next Steps

For our part, Root Capital will combine targeted lending and business advisory with action-oriented research to address specific barriers. As a mission-driven agricultural lender, we consider the health of extension services a core concern of our business and our mission. Effective enterprise extension can advance the positive impact on smallholders and the environment that is our mandate, while mitigating credit risks related to farmer performance. Conversely, weak or absent extension can undermine both enterprise impact and creditworthiness.

We will focus on the role that finance and financial management training can play, while engaging other actors to address barriers that fall outside our area of expertise.

Most immediately, we seek partners in designing, delivering, and funding effective climate-smart extension, informed by analysis of the business case and the social and environmental impact case in different contexts. Greater investment alone will not improve enterprise extension systems; rather, enterprises must invest in the right extension activities. Enterprises and funding partners alike need guidance on projected climate change impacts, cost-effective risk mitigation, and adaptation strategies to design extension activities. Investment plans can then flow from these activities — although additional field research will be needed on the costs and benefits of enterprise extension in various contexts to optimize spending and inform funding strategies.

We will pursue two parallel tracks to address these challenges:

2 Side-selling refers to the practice of farmers selling their crop to other buyers, often middlemen, despite having formal or informal purchase agreements in place with an enterprise.

Action-research

We recently started working with the International Center for Tropical Agriculture (CIAT) and the Sustainable Food Lab (SFL), with support from the U.S. Agency for International Development (USAID), to address knowledge and capital constraints preventing climate-smart investment in smallholder supply chains, via extension, sourcing practices, or other activities. The project seeks to promote greater private sector engagement in climate-smart agriculture by providing investment roadmaps grounded in climate science. Specific activities related to enterprise extension include:

- **Identifying climate-smart strategies for smallholders.** CIAT will evaluate climate risk exposure and resilience gaps within specific geographies to assess vulnerability to climate shocks over different time horizons. CIAT will then translate vulnerability assessments into a menu of context-specific climate-smart practices, based on the scientific literature and field experience. Recommendations will include plans for promoting farmer adoption of identified climate-smart practices through various extension activities.
- **Diagnosing enterprise capacity to deliver effective, climate-smart extension.** Root Capital will develop a diagnostic tool to evaluate enterprise capacity — along agronomic, business management, and financial dimensions — to deliver the proposed extension activities. The tool will also assess the expected return on investment to match proposed activities with funding that has appropriate impact, risk, and return expectations
- **Co-designing extension improvement and investment plans.** Based on diagnostic findings, CIAT, SFL, and Root Capital will co-develop tailored improvement plans with agricultural enterprises to make extension more effective and more climate-smart. With supply chain and government partners, we will then seek partnerships to sustainably fund proposed improvements.

To inform the project above, we also plan to evaluate the costs and outcomes of specific extension programs in our loan portfolio to quantify the business economics and the impact case for enterprises to provide extension to smallholders. We will begin with a subset of the more than 30 coffee enterprises participating in Root Capital's Resilience Fund.

Finance and Business Advisory Services

The action-research agenda will inform the expansion of existing Root Capital loan products and business advisory services that facilitate or complement enterprise extension activities.

- **Growing debt finance to address capital constraints.** Root Capital provides lines of credit to fund input provision programs and internal credit systems. These revolving loan products allow enterprises to invest in fertilizers, seeds, or other inputs for sale to suppliers, or to provide microloans to farmers for a range of farm investments. We also offer multi-year capital expenditure loans for investments in fertilizer depots or other physical infrastructure that can be used to deliver extension.

  To date, we have disbursed over $20 million in financing for these activities. We are exploring expanding these products, particularly the capital expenditure loans, in response to borrower demand. We expect modest growth in this area, however, due to limited addressable demand—many enterprises simply lack the management capacity to take on multi-year loans. We plan to focus our efforts on expanding the addressable demand through innovative loan structuring or financial management training for prospective borrowers.
- **Expanding business advisory services to address knowledge constraints.** Root Capital provides training on the responsible management of internal credit systems that often complement extension programs. To date, we have provided training on this topic to 34 enterprises in Latin America.

  We are also piloting a new advisory service using mobile technologies to capture farm-level data that can inform enterprise activities, including certification compliance, extension, and procurement (see Box 15). In 2016 we will expand this service from the five cooperatives trained in 2015 to more than 20 enterprises across Latin America.

With this issue brief, we seek to share our learning to date and initiate dialogue with like-minded practitioners, donors, and investors. We believe each of these complementary stakeholders has a role to play in helping agricultural enterprises build farmer resilience, and we seek discussion and collaboration in this work.

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