



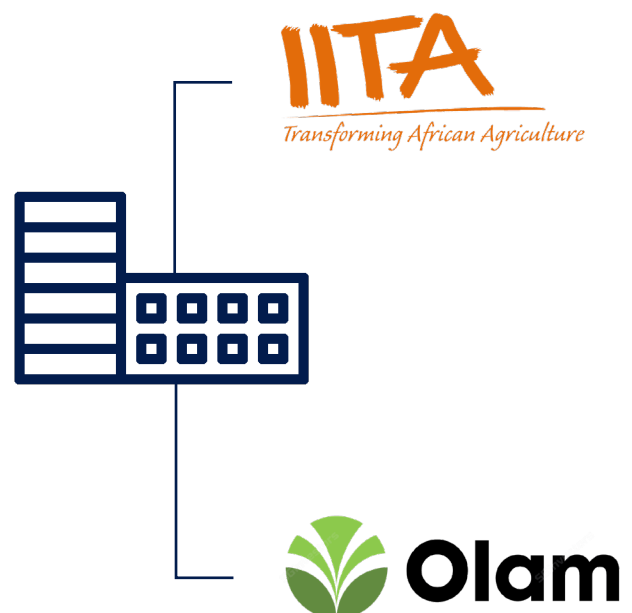
IMPROVING COFFEE SECTOR CLIMATE-SMART AWARENESS AND DECISION-MAKING

KEY LESSONS FROM PRIVATE SECTOR ENGAGEMENT IN THE
USAID LEARNING COMMUNITY FOR SUPPLY CHAIN RESILIENCE



Summary

Working through a USAID Learning Community for Supply Chain Resilience grant, the Institute of International Agriculture (IITA) and Olam are working together in the Mt. Elgon region in Uganda to develop climate-smart agricultural (CSA) practices to help farmers to manage the specific effects of weather variability/ climate change to that region and lay them out in a “Stepwise” pathway tailored to specific farmer segments to help them make smarter and more timely investment in resilience building practices. Olam, a coffee trader in Uganda, offering direct services to its farmers, is co-funding this project because it sees the project value in its ability to save costs in the short-term while building farmer climate resilience in the long-term, all the while creating a more sustainable supply.



Actors



The International Institute of Tropical Agriculture (IITA) is one of the 15 institutes of the CGIAR global research partnerships. IITA is a leading research partner in finding solutions for hunger, malnutrition, and poverty in Africa. IITA works with partners to enhance crop quality and productivity, reduce producer and consumer risks, and generate wealth from agriculture. IITA's research focus over the past 5- 10 years has expanded to include (i) resilience, (ii) trade-off analysis for smallholder livelihoods, (iii) innovation systems and impact pathways, (iv) institutional and policy dimensions from local to national level and (v) the role of private sector to scale sustainable agriculture.

IITA Uganda has developed two complementary approaches to increase adoption of climate-smart agricultural practices by coffee farmers: farmer segmentation and the Stepwise approach for smallholder farmer investment in climate smart practices. These tools help to differentiate farmers into groups, depending on their level of entrepreneurship and assets, to promote climate-smart agricultural practices through different pathways that align with farmer preference, ability to invest and the climate challenges they are facing. Farmers often do not have the capacity to invest in the entire extension package and prioritized investments are context specific. This Stepwise approach increases investment incrementally in each pathway, using the income gained at the last step to facilitate investment in the next practice (eventually completing the whole site-specific basket of climate-smart agriculture practices). For more information on Segmentation and Climate-Smart Investment Pathways in coffee, see [here](#).



Olam is a global agribusiness supplying food, ingredients and raw materials. Olam is one of the leading green coffee origin exporters, sourcing from over 20 countries, and focusing on work with farmers to improve yields, quality, incomes and overall resilience. With Sunny Verghese, the co-founder and Group CEO of Olam International, appointed as the World Business Council for Sustainable Development (WBCSD) Chair in 2018 and Chairman of the Global Agri-Business Alliance (GAA), the company continues to intensify its focus on sustainability through all the crops it sources externally by leading the sector's effort in collaborative action. Sustainability efforts also materialize themselves through the company's Core Purpose of re-imagining global agriculture and releasing its refreshed Olam Living Landscape Policy. This ground-breaking policy clearly marks the company's aspiration to deliver a triple positive impact in the places where it sources and grow its products, working across its businesses and with partners to create and sustain living landscapes, where prosperous farmers, flourishing rural communities, and healthy ecosystems coexist.

In Uganda, Olam sources Arabica and Robusta coffee through direct farm gate procurement from farmers and through local buying agents (LBAs). This case study focuses on direct farm gate procurement in the Arabica growing region of Mt. Elgon. Olam's farmer support for Arabica coffee is delivered through a team of Olam field-based coordinators (FBCs) offering training and in-field technical support. Each Olam farmer group consists of between 25-30 members, who are supported in the establishment of demonstration plots. A demonstration plot typically serves 150 registered farmers who regularly receive training at those locations. For more about Olam's coffee program watch this [video](#) or visit Olam's [website](#).

Key Challenges Addressed

Climate Risk

Like most districts in Uganda, Mount Elgon is predominantly agricultural, with the majority of the population relying on subsistence farming for their livelihoods. Serious climate related threats to farmer livelihoods include increasing population, unsustainable land use and management practices (such as deforestation and agriculture), and weak governance of the natural resources. The district is experiencing decline and variability of rains as well as rising temperatures. These weather variations present serious challenge to farmers seeking to maximize seasonal farm yields.

Limited Farmer Adaptation to Climate Change/Weather Variability

IITA research has concluded that climate-smart agricultural practice adoption is hindered, in part, due to limited resources and differing levels of entrepreneurship amongst smallholder coffee farmers in Uganda. In addition, farmer limitations and aspirations, farming systems, and climate change impact vary from site to site. Enablers of CSA adoption therefore need to be contextually specific to ensure they relate to local needs.

Supply/Quality Risk

More variable weather patterns necessitate climate smart practices to help farmers adapt to sustain productivity, which in Uganda has generally been low. At the same time, the cyclical price cycle is at a 13-year low, making it difficult for farmers to maintain necessary investments in their fields. Companies are trying to come up with ways to maintain coffee supply and quality levels in this environment, which can be supported by promoting farmer resilience and identifying innovative ways to decrease or share risk with farmers for investment.

Learning Questions

1

What are the appropriate agricultural practices that help farmers to manage the effects of weather variability/climate change particular to a certain area (in this case, Mount Elgon region)?

2

How can companies help to enable farmers to make smarter and more timely investments in their farms?

3

How can companies promote the adoption of practices among farmer partners that help them to build resilience to climate change for a particular sourcing area?

4

How can a company better understand its farmers, and how can it most efficiently and effectively invest limited resources in different “types of farmers”?

Pilot Activities

Olam provides direct services to farmers and invests in CSA as a way to secure supply

FARMER SEGMENTATION

Understand farmers' motivation, ability and desire to invest in practices

IITA worked with Olam to understand the diversity of coffee farmers by looking at available on-farm resources and farmers' entrepreneurship (willingness to invest in coffee as their main cash crop) to segment farmers into “like” groups. Diversity across ‘segments’ highlights differences in ability and motivation to apply CSA practices on their farm.



EXPECTED RESULT

Better understanding farmers differences will help Olam to spend resources more effectively. With this information, extensionists can match training on CSA practices to farmers' specific resources and motivations to increase uptake of practices through a Stepwise investment pathway.

STEPWISE PROGRAM DEVELOPMENT & TRAINING

Improve uptake of climate-smart agriculture among farmers

By breaking down the basket of recommended CSA practices into smaller, incremental steps, the IITA team has developed an innovative investment pathway (Stepwise) to make CSA adoption affordable for smallholder coffee farmers. Stepwise is easily adaptable to the varying needs and aspirations of coffee farmers and their agroecological site differences and thus presents a contextually specific set of climate smart practices for each region.



CHALLENGE ADDRESSED

Farmers often know the types of practices needed, but are unable to invest or unwilling to risk investment in CSA practices. Laying out specific practices in a way that factors in the resources and motivations of farmers helps to increase uptake and target company resources more effectively

DEMONSTRATION PLOTS FOR “STEPWISE” PRACTICES

Understand CSA practices for coffee in specific geographies

Stepwise is being piloted on 26 farm trials in 3 districts, with direct implementation led by Olam in Mount Elgon. IITA researchers support Olam with data collection and monitoring of activities as well as the impact of “Stepwise” investments (CSA practice adoption) on yield, pest and disease pressure and soil nutrition. The demo plots also act as farmer field schools for farmers to visit and observe the four steps and the incremental increase in coffee quality and yield at each stage.



EXPECTED RESULT

Extensionists can more confidently recommend, and farmers are more likely to adopt, climate smart practices when they can see their effects on yield, pest & disease pressure, and soil on established plots.

Sustainability requires scaling. Coffee companies throughout the entire supply chain need to work together to invest in sustainability efforts. It must be a joint effort from all actors of the supply chain.

– Jeremy Dufour, Olam

Sustainability Requires Scaling

Those that provide extension support services to smallholder coffee farmers, like Olam, benefit from piloting activities like the above, learning from the results and then implementing on a larger scale. The segmentation and Stepwise approaches in particular are well suited for scaling efforts as Olam can bring together groups of farmers that fall into the same “segment” to see first-hand how such practices affect yield on a demonstration plot. Farmers that are able to see this in practice, have more confidence in implementing these approaches, and the return on investment is higher for Olam.

To improve learning across geographies for scaling, IITA arranged for a learning exchange between the Olam pilot study in the Arabic growing area of Mount Elgon and an HRNS pilot study (using similar activities) in the Robusta growing region of Luwero: see [here](#) for more information. The next step in scaling will require moving from a farm-level focus to a landscape focus.

Barriers to private sector engagement with NGO partners

Companies that directly engage with smallholder farmer partners understand to varying degrees the social component embedded in the business model. Depending on the particular contact at the company, and where that person sits (i.e. procurement vs. sustainability or on-the ground vs. global) they will have different levels of understanding, needs for information, and entry points for project investment. Especially those companies at the beginning stages of truly engaging with smallholders may have doubts around the value of a social component to their business model (viewing social sustainability as more of an outside function) and are more likely to have to be convinced that development partners, researchers and NGOs can help with return on investment with regard to security of supply as well as reputational risk.

Margins are thin for most exporters. They know that they have to be innovative to gain competitive advantage, but are understandably hesitant to take risks on experimental practices or projects that could distract the team with no real pay-off. Development stakeholders often have different objectives than the private sector, but are trying to solve the same underlying challenges. Finding this alignment, and framing projects to private sector in terms of their own objectives instead of development objectives, is something that many development stakeholders fail to realize to the detriment of projects that could be successful. Moreover, understanding the goals and motivations of companies also entails being cognizant of their timelines, which can differ significantly to the longer timelines applied for research purposes. Private sector partners need to hear the business case, not only to be convinced themselves, but also to be able to sell it within the company.

Company Characteristics

Olam as a company has a particular set of characteristics that enable its decision-makers to invest in innovations for longer-term sustainability. As a direct service provider, it is interested in on-the-ground, real-time information and analytics that can translate into yield and quality gains for its farmers, and cost reductions through more efficient delivery.

Company wide commitment enables decision-makers to innovate in this space.

Many companies emphasize sustainability, but reward mainly for short-term profits rather than for benefits that will come to fruition in 3-5 years, especially if the market is favoring low prices or productivity in the short-term has declined. In early 2018, Olam relaunched its Core Purpose from “growing responsibly” to “re-imagining global agriculture & food systems”. In doing so, Olam has solidified sustainability as a pillar of its business. The company recognizes the importance of sustainability for their business, suppliers and consumers and incentivise their staff to actively promote and build this across all their supply chains. As a company with a long-standing commitment to sustainability, Olam continues to allow employees to focus on long-term investment projects while staying profitable in the short-term.

Importance of a leader/champion within the company that pushes for sustainability and understands the value that development partners can bring.

In this case, Olam had a long-term regional sustainability coordinator, as well as previous employee from the research world, in particular from IITA. In collaboration with others, these individuals played a major role in the understanding of and belief in the value of activities that IITA was proposing. Moreover, with Olam’s focus on long-term sustainability, the company was ripe for innovative action. This is the most desirable type of environment with understanding and engagement on the ground linking to a larger sustainability plan that aligns with the companies’ values.

Private Sector Engagement & Learning

Private sector engagement centers around informal conversations looking for areas of mutual interest by asking about challenges that companies are facing and looking for corresponding solutions that can be tailored to the company’s challenges and fit with the company’s interests and goals. The entry point is key, finding the core overlap of interest and being able to find a solution that allows for short- to medium-term gain for companies that will lead to long-term learning and ideally investment and scaling.

“Understanding and aligning to the challenges that companies face is imperative to gaining investment. In Uganda, coffee companies have been training farmers for a decade, but productivity is still low. If we can introduce IITA’s tools and form a partnership we can work together to get real results.”

– Laurence Jassogne, IITA

“If a project can add story-telling value that emphasizes quality or sustainability, this can be a really compelling entry point. The company then knows that there is a possibility to not only improve security of supply, but also to increase the differential with the story.”

– Suresh Iyer, Olam

Entry Point

As described above, there are several barriers to engaging the private sector given the varying focus areas and the time required to fully understand a company’s challenges, motivations and business model as well as finding key entry points that lead to investment.

Sustainable Supply and Reputational Risk

Key to understanding alignment with the private sector is identifying the contact’s main motivation as well as the broader company. Many companies will be concerned both with sustainable supply and reputational risk, to different degrees. However, in particular geographies they may have strong motivation to pursue a particular project to mitigate supply or reputational risk, depending on which they are feeling most intensely. Knowing this allows a development stakeholder to tailor a project’s learning questions and activities appropriately.

In the case of Olam, the main entry point was sustainability (i.e. quality and quantity) of supply. In Olam’s view, the most critical challenge is to ensure that coffee farmers continue to invest in coffee in ways that enable them to grow production and quality in the face of climate change, acknowledging that farmers have other economic alternatives to growing coffee. This necessitates Olam to be able to better understand their farmers, the choices that they make and the challenges that they face. Once productivity is managed, the company can focus with farmer partners on producing higher quality coffee so that farmers can capture more value from their work. Once producing a higher quality/specialty coffee, the reputational risk element becomes stronger, as the company has the potential to add value to the coffee with a sustainable coffee story which increases the differential. Apart from higher quality of the coffee itself, a sustainability story that creates a reputation of responsible sourcing can also help a company to sell itself to others upstream.

Technology

Technology that provides an innovative or cost-saving solution can be a natural hook for a company, and can be especially useful when linked to learning. In the case of Olam, they are always keen to hear about a technical solution to challenges they face. This pilot was spurred by the ability to utilize information from the Olam Farmer Information System in a more effective way using the Stepwise App developed by IITA. This link made for a quick win for the company that could then be turned into longer-term learning on farmer segmentation and more effective adoption of climate smart practices that build farmer resilience.

The Stepwise App, provides a way to collect farmer information and design farm development plans, equipped with graphics that are easy for both the extensionist and farmer. The key selling point for Olam is the learning and analysis that comes from the tool. Coupled with farmer segmentation, the app helps to create an awareness that not all farmers are alike and that practices are neither equally beneficial nor likely to be taken up by all farmers. The promise of a technical solution further excites Olam management who are investing heavily in building digital solutions in their supply chain management.

“The Stepwise App is creating awareness that not all the farmers are the same and that practices are not equally required. This paired with farmer segmentation allows companies to target resources more efficiently.”

– Laurence Jassogne, IITA

Incentives/Attractiveness for Company Investment

Increasing Profitability and/or Saving Money

Private sector companies are for-profit entities. While these companies have an eye on long-term supply sustainability and reputational risk, many, especially those closer to the ground with lower margins, often see short-term profit increasing or saving innovations as the win-win that is especially enticing. Social innovations, which are generally a more difficult sell for companies than technical innovations, are easier to sell as money-making or money-saving investments.

Olam was particularly drawn to the segmentation element of this project as a way of using resources more efficiently based on farmer characteristics. Segmentation provides data for Olam to make targeted investment based on farmer needs and motivations, rather than spread resources evenly over target farmers, which can be inefficient. While the use of segmentation results is still in process, one promising idea is to use it to better distribute fertilizer. When Olam has a shipment of fertilizer, which is very expensive in Uganda, instead of giving each farmer a little bit of fertilizer, which is not only inefficient but also ineffective, Olam could target those who would most benefit from applying the correct dosage of fertilizer (for instance, those that are on Step 4 of Stepwise) and by not providing fertilizer to those who would more benefit from increasing adoption of other climate smart practices such as pruning.

Co-funding Can Help

Co-funding can help to relieve some of the doubts around return on investment for unproven strategies when companies are more focused on short- to medium-term profits and averse to risk. Companies look to innovate by somewhat

offsetting the cost for activities that are not immediately apparent for their short-term value-add. This is valuable both in terms of budgeting and selling the idea to company decision-makers higher up the ladder.

For Olam, this is a project they would have been interested in, but much less able to partake in fully without the co-funding provided by USAID. Of course, USAID in return for funding is also able to gain insights on the results and share certain aspects for the broader good of the sector.