Located just outside the small village of Kwa msisi in the Tanga region of Tanzania, Sasumua Holdings Limited (Sasumua) is preparing to scale up the production and processing of its horticultural crops. Having secured 6,000 hectare (ha) of land in 2007, the company has spent the past 8 years experimenting with various crops and market opportunities in an area lacking reliable weather and pricing data. Now, having determined that its greatest opportunities are in processing pineapples and growing a select number of horticultural crops under irrigation, the company is moving forward on developing a processing facility and expanding its area under cultivation. To ensure operations are successful, the company will still need to tackle several ongoing challenges inherent to the region – namely, lack of sufficient water resources and an efficient market channel.

As the company moves forward with its business plan, it will bring smallholder farmers into operations through several mechanisms. First, an out-grower scheme will include both farmers who are already producing pineapples as well as those who will learn for the first time. Both groups will receive training and support from Sasumua, which will ultimately purchase and use their volumes for processing pineapple juice concentrate. Second, an in-grower scheme is being developed to engage individuals living on company-owned land to grow crops in exchange for tenancy. And third, a system of block farming will be established in partnership with local communities. Blocks of land provided by sub-villages will receive irrigation from Sasumua and be made available to community members for raising crops. Through these out-grower, in-grower, and block farming schemes, Sasumua seeks to ensure that the broader community benefits from the company’s operations and the market opportunities it has identified.

Background: A Legacy of Family Farming Takes on Tanzania

Sasumua director Rory Nightingale (Nightingale) is no stranger to agriculture in East Africa. His family has been farming in Kenya since 1906, focusing on cereals, vegetables, and livestock in the country’s central highlands. The name “sasumua” comes from the Kikuyu word for a white flower that grows on the slopes of Mt. Kenya, and it was the name of the original family estate. When Nightingale first went to neighboring Tanzania it was for a separate business opportunity, but his family was always keen to pursue a larger-scale farming operation there. Nightingale stayed abreast of potential opportunities and eventually came across the land that would become the new Sasumua estate.

The land had an interesting history to it. In the 1970s it was titled off for a 10-year cooperative agreement between the Russian and Tanzanian governments for a cotton estate. However, at the end of the term, there was little cotton to show for all the planning and investment.

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1 Personal interview and site visit with Rory Nightingale, director, Sasumua Holdings Limited on March 23, 2016.
that had gone into the project. The governments decided not to make further investments into the estate, and it was eventually privatized. Over the next 2 decades the land was sold to 2 different investors but was never fully developed. This frequent turnover, however, meant that the land title had been clearly defined and observed over time. This, in addition to its good soil and large size, made the land an attractive opportunity to Nightingale. He and 3 partners purchased the land in 2007 and took over the area in 2008 which, with the exception of 1 small field, was entirely undeveloped. The next step was figuring out what to do with all that land, and then, how to do it.

**Establishing a Plan: Of Land and Opportunities**

The founders of Sasumua set out to experiment with different crop varieties and market opportunities in order to determine their competitive advantage in the region. Since there was not reliable historical data on temperature, rainfall, or market prices for agricultural goods, they needed to collect and analyze this information during the initial development phase, making it a lengthy one. The company began by testing cereal crops for which Nightingale had experience in Kenya. However, despite their ability to grow in high temperatures, the rainy season was too short to provide enough water for the varieties available in Tanzania. Irrigation was possible, but not at scale. Sasumua next undertook trials of 40 different horticultural crops, eventually selecting 12 to pilot under field conditions and test in the market. The climate seemed to be better suited for fruits and vegetables, but one limiting factor persisted: insufficient access to water. Some of the more promising crops were dependent upon establishing a robust irrigation system, especially bananas, so the company began exploring where rainwater catchment dams could be built. In 2015, together with social investor AgDevCo, Sasumua built the first of such dams on 1 of 4 sites identified.

While it waits to see if and when this dam will fill, Sasumua has turned its attention to pineapple, a less water-reliant crop with strong market opportunities – the fruit has the potential to be sold both fresh or processed, locally or internationally. The local market for fresh pineapple becomes saturated between the months of November and February, as thousands of nearby farmers harvest and sell their yields at the same time. However, Sasumua is exploring new planting techniques that will allow it to harvest pineapple in the off-season. Additionally, by focusing on a higher-quality and larger-sized fruit, the company hopes to deliver a more competitive product and develop favorable brand recognition. For the international market, however, consumer tastes for fresh pineapple favor a different variety than what is commonly available in Tanzania. Therefore, to export, the company will need to pursue processing opportunities. As canning is largely dominated by a few key players, namely Del Monte and Dole, the company has decided to produce pineapple juice concentrate.

By 2015, the company had a finalized business plan for scaling up its operations at the Sasumua estate. The plan includes completion of a pineapple processing facility by 2018 in partnership with a South African company that brings a wealth of experience in pineapple processing, including how to use process waste to produce other end products. To supply the volumes needed for this 100,000-ton facility, Sasumua’s pineapple plantation will be expanded to

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2 MD2 is preferred for its sweeter taste as compared to the Smooth Cayenne variety which is readily available in the Tanzanian market. The MD2 variety has not yet been registered in the country and planting material is sparse, although Sasumua continues to pursue ways to grow this new variety.
cover approximately 3,000 ha at any given time. This plantation will produce approximately 85,000 tons of pineapple while the remaining 15,000 tons can be sourced from smallholder farmers in the region. The company will also continue pursuing other horticultural crops – namely bananas, tomatoes, and watermelons – expanding their production to 100 ha once water has been secured through the new catchment dam. In the future, when additional dams are built, Sasumua will be able to bring more crops under irrigation as well. Finally, the company also plans to raise cattle for beef production on its fallow land, growing from a current herd of 650 to 3,500–4,000.

Creating the Market: Addressing the System Directly

While pineapple juice concentrate (PJC) will initially be exported to Europe, Sasumua’s fresh products will be sold through local and regional marketing channels. There is a tremendous opportunity to serve the growing demand for horticultural crops in East Africa where population and urbanization rates continue to grow. As people move from rural areas to urban centers, there are more city-dwellers to feed with fewer farmers to feed them, creating an opportunity for those who remain in agriculture. The challenge, however, will be reaching consumers through the existing market system, one which is extremely fractured and inefficient. For agricultural products to move from producers to consumers, they must pass through a series of actors including farm agents, transporters, market brokers, and retailers. This frequent exchange of hands raises prices and dilutes transparency through the process. Farmers have very little knowledge about the prices offered or products demanded in the marketplace while retailers have little information about the origin of their goods.

Rather than sell into this broken system, Nightingale is instead working through a consortium of partners known as the East African Farmers Market (EAFM) to develop an entirely new system for fresh produce in Tanzania. EAFM seeks to develop a fresh produce market modeled after South Africa’s wherein traders work on commission for producers. All transactions are made through an electronic, cashless system which tracks price, volume, and grade data. By tracking and making available such information, producers can be more strategic about what, where, and when to sell while buyers can track the availability of inventory and specific brands. To Sasumua, establishing a commercially viable marketplace is paramount to its future success. Beyond just better prices, such a system would encourage the emergence of small- and medium-sized enterprises to provide complimentary services like transportation, packaging, and brokering. This will prevent Sasumua from having to take on such logistics itself and allow the company to focus on its core: producing high quality fresh products for local consumption.

A commercial pilot for a professionally-managed fresh produce market is planned for Dar es Salaam, Tanzania. The Africa Enterprise Challenge Fund (AECF) has committed $800,000 in grant funding for the pilot, an amount that Sasumua has matched. Additional financing, however, will be needed to cover the $4 million of estimated costs. Given that a new, regulated fresh market system could have tremendous impact on the incomes received by farmers and the opportunities for enterprises to provide complimentary services, the company is looking for donor and NGO partners who may be willing to contribute the remaining funds.
Engaging the Community: Grower Schemes and Development Projects

As Sasumua prepares to scale up operations and supply to the local and international markets, it will engage community members through farming initiatives and development projects. Through out-grower, in-grower, and block farming schemes, the company will provide technical expertise, trainings, inputs, as well as marketing opportunities for local farmers. Volumes produced by those who participate can then be purchased by Sasumua for its new processing facility or transported along with its fresh produce to local markets. Other development projects will target a broader group of community members through education and health initiatives, part of the company’s longer-term philanthropic objectives.

Out-Grower Farming

Through its out-grower program, Sasumua will work directly with local farmers in 1 of 2 ways: 1) current pineapple farmers will receive technical assistance to improve cultivation along with the option to sell to Sasumua; and 2) new pineapple farmers will receive technical assistance and inputs on credit to begin cultivation along with a formal contract to sell to Sasumua. Outside partners will be brought in to supplement the company’s efforts and further support this out-grower programming.

The first of these 2 models will focus on current pineapple farmers in nearby Kiwangwa, an area well-known for the production of this crop. By working closely with a non-profit partner, Sasumua will identify promising farmers to participate and receive training on best agricultural practices for pineapples. This will include how to select proper fertilizers, apply pesticides, and manage plant maturation for more efficient harvests. These techniques will ensure the growers are able to produce a high quality product that meets all requirements for the new Sasumua facility (and thus, for export as PJC to the European market). The initial group of farmers will serve as a model within their communities, hopefully incentivizing others to join the out-grower program.

While Sasumua will play a key role in this model of the out-grower program – primarily through the provision of technical assistance – it will not require formal contracts be signed with the farmers. As the industry is prone to side-selling, the company would like to ensure that it can provide useful support without establishing a reliance on or from the farmers. It hopes that the participating farmers will benefit from improved agricultural techniques and be better qualified to supply to Sasumua, as well as other buyers, but there will be no requirement to sell solely to the company. Because it will not take on the full risk or return of investing in these farmers, the company is seeking a non-profit partner who will be able to take on the funding and implementation of this out-grower initiative.

In contrast, the second model of the out-grower program will target farmers who live adjacent to the Sasumua estate but do not yet grow pineapples. To bring these farmers into a new value chain will require more significant support and oversight from Sasumua. The company’s agronomists will provide the farmers with extension services, and inputs will be provided on credit – either from the company or a financial partner. Sasumua will also establish a nursery through which it will provide pineapple seedlings to the participants. To ensure that this out-grower program is viable, the company will use a more formal contracting arrangement with the
participating farmers in order to ensure it receives sufficient volumes. Sasumua plans to use the final pineapples produced for its PJC facility, although exporting fresh pineapples may be an option in the future, especially if the MD2 variety becomes a viable option.

**In-Grower Farming**

Sasumua is also experimenting with the idea of an in-grower program to engage individual farmers who are living on company-owned land. In exchange for their continued tenancy on the estate, these farmers would be asked to grow specific crops for Sasumua. Potential crops could include those already grown on the estate – pineapples, for example – or they may expand into agroforestry. On the latter, the company could improve its environmental impact by re-introducing native species to the area while also investing in a future supply of lumber for its operations.

**Block Farming**

Sasumua is also working with nearby sub-villages to develop a block farming program in which village leaders provide land and Sasumua provides water for community members to cultivate crops. Each sub-village where a rainwater catchment dam is established will be engaged in this block farming partnership. The sub-village will make available 5-20 ha of land and establish a governing body to manage which community members will be given a unit on which to farm. Sasumua will provide these farmers with trainings, focusing on the company’s core horticultural crops but also encouraging the cultivation of staple crops that can be used for local consumption (maize, for example). While the volumes produced on the block farms can be sold to any buyer, Sasumua is a potential off-taker and could deliver the produce to the local market on behalf of the farmers.

**Community Development Projects**

Outside of its grower schemes – which naturally contribute to the company’s philanthropic endeavors – Sasumua has also outlined an explicit portfolio of community projects to support the education, health, and overall economic development of the region in which it operates. Based upon a village needs assessment completed by the non-profit Swisscontact, the company has established short- and long-term priorities for its initiatives. This year, Sasumua will begin building 4 preschools in nearby sub-villages, as well as an adult education center in Kwamsisi village. Over the longer-term, the company will also explore opportunities in maternal health, mobile health solutions, and water services.

The strategy behind both its out-grower and development initiatives is to build strong relations with the local community. While the grower schemes do provide an opportunity to strengthen Sasumua’s business operations – through increased access to high quality supply – this is not the company’s sole objective in undertaking such programming. The company believes there is a moral obligation to engage the community through economic opportunities and provide the social services needed to improve livelihoods. As many of their target beneficiaries are farmers, they are well-positioned to play a role in improving local agricultural practices. The company has
also served as a major employer in the community – especially of women – hiring between 100 and 600 casual laborers depending on their stage of operations.\(^3\)

Since the company first entered the community and began hiring and sourcing from locals, they have seen visible improvements in the quality of life. In the coming years, they plan to track and measure data on living standards to be able to quantitatively measure this social impact. A baseline survey has now been completed and will be revisited approximately every 5 years. Although community engagement and development are high priorities for the Sasumua leadership team, it is still distinct from bottom-line strategy. To keep the resources and approaches for each separate, Sasumua plans to setup a non-profit organization through which it can manage its community development efforts.

**Financing the Company**

During its initial startup phase, Sasumua has been largely financed by the founding shareholders. One outside investor that has provided capital is AgDevCo, a social investor focused on early stage agricultural ventures. AgDevCo has supported Sasumua’s first catchment dam and in-field irrigation with an investment of $2 million. The social investor holds a 17.5 percent minority stake in the company.

To date, Sasumua has raised a total of $9 million in committed capital, of which $6 million has been spent. Moving forward, the company is targeting Development Finance Institutions (DFIs) to secure the funds required for its new processing facility and expanded pineapple plantation, which is estimated to require $20 million.

In fiscal year 2015, Sasumua generated $200,000 in revenue and had a gross margin of roughly 50 percent. Once fully operational, the company expects to bring in $22.5 million in annual revenue and increase its margin by earning a price premium for being a high-quality brand. Almost 80 percent of revenues will come from pineapple products while the remaining 20 percent will come from bananas, other horticultural crops, and beef products.

**Looking Ahead: Challenges on the Horizon**

As Sasumua moves forward with its new business plan, it will continue to come up against several key challenges. Of utmost importance will be accessing sufficient water resources. The success of many of the company’s crops hinge upon the establishment of an intensive irrigation system. Finding water supply and managing its use is not only a challenge for Sasumua but for the broader agricultural sector as well. Land is also of concern; regulation on titling remains unclear and public concern regarding rights to occupancy is exacerbated by a lack of formal titles in the country.

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\(^3\) During its commercial pilots, Sasumua employed approximately 600 individuals, primarily as casual laborers. At the time of writing, in April 2016, that figure was closer to 100. This number is expected to increase once again as the company operationalizes its business plan.
Working in a region where there have been few opportunities in the past for formal employment can also make it difficult to find and retain highly trained and motivated labor. Sasumua has worked closely with its employees to develop schedules and incentives that are aligned with their needs and desires. However, the company still competes with the local harvesting and planting cycles, during which community members must be at home to attend their own farms.

Finally, one of the greatest challenges in the years ahead will be accessing profitable markets in a region characterized by fractured and inefficient marketing channels. To overcome this barrier, Sasumua is working to develop a new, regulated market for fresh produce in Dar es Salaam as it continues to scale its own operations. Although attempting to overhaul the current agricultural marketing system will come with risks and unknowns, the payoffs are critical to the company. If it is successful, not only will Sasumua benefit from better margins, but the country of Tanzania stands to gain from having a more transparent marketplace whereby the quantity and quality of produce demanded by the public can be adequately met.