FONDATION POUR LES ÉTUDES ET RECHERCHES SUR LE DÉVELOPPEMENT INTERNATIONAL

Mitigating the Credit Risk associated with Agricultural Lending in Rural Tanzania

Adrian Merryman

Adrian Merryman is Chief Executive Officer at *VisionFund Tanzania*.

This paper provides a brief overview of what VisionFund Tanzania ("VFT") has learned through its experience applying weather index insurance as a tool to mitigate weather related risk in rural Tanzania, and how it is impacting our future approach.

policy brief
74
September
2013
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Country background

Tanzania is an East African country with a population of roughly 43 million of which approximately 75% of the population resides in rural areas and 80% derives a substantial portion of their income from agriculture. In 2009 according to a FinScope Survey only 8% of those in rural Tanzania had access to formal financial services and only another quarter had access to informal financial services.

Complicating the situation for an already impoverished country (with an average per capita annual GDP of roughly $500 per year) is the very noticeable impact of climate change, which has shortened the intervals between drought and floods and increased their severity.

VisionFund Tanzania background

VFT, a World Vision International and VisionFund International partner, is a profitable, rapidly growing MFI with circa 40,000 loan clients, a 33% per year growth rate and a high quality portfolio. VFT's average loan size is among the very lowest in Tanzania at circa $300. VFT recently received its provisional deposit-taking license from the Bank of Tanzania and will shortly begin accepting client deposits.

VFT's core strategic objectives follow:

1. Serving the rural population where the greatest poverty exists.

This requires that the majority of VFI's future growth take place in the difficult and expensive to reach rural areas where agriculture is the predominant economic activity.

2. As a deposit-taking savings-led institution encouraging a "save first and always and borrow judiciously and only for investment" ethos.

3. Providing client training through animated Kiswahili videos covering the areas of financial literacy, business basics, Life skills and an empowered Judeo-Christian worldview.

VFT's strategic roadmap

To achieve its strategic objectives, and particularly rural expansion, VFT is:

1. Sharply reducing Cost per Borrower ("CpB") so that it can operate rurally on a break-even basis.

Despite having a cost structure that is roughly 30% below major competitors VFT still loses an average of over $25 on every rural loan. To further reduce CpB and achieve rural breakeven VFT is increasing clients per loan officer by reducing administrative burden and increasing access to transportation. Administrative burden is being reduced through a tablet based automated paperless loan and savings account application process with GPS marking of client homes and businesses, and biometric identification.

2. Implementing a cashless banking solution that is systems/mobile phone based based rather than utilizing a traditional high cost bricks & mortar teller based branch network.

The cashless phone banking based solution permits clients anywhere within reach of a phone signal to check their account and loan balances, withdraw or deposit money, or pay down loan balances at any time. Once cash is on a mobile wallet (using Vodacom's M-pesa or Airtel's Mobile Money) a client is able to transfer those funds to other mobile wallet holders or convert them to cash through an agent.

3. Providing clients with agricultural balloon loans, which defer all principal and interest payments until the end of the loan term.

Currently 20% of VFI's portfolio can be allocated to such loans, and as VFI is able to better mitigate risks the allocation cap will increase.

4. Utilizing weather index insurance as one means of mitigating the risks associated with making rural loans.

5. Working with World Vision Tanzania ("WVT") to develop additional means of mitigating the agricultural lending related risks.

These include:

a. Encouraging better watershed management (including the drilling of wells, building of water pans and improvements in irrigation infrastructure).
b. Development of, and access to, value added food-processing facilities that reduce the risk of perishable foods spoiling or being sold at low prices.
c. Supporting development of business plans that can be used by farmers to obtain loans for the acquisition of products that enhance production efficiency and quality (As examples; i) purchasing and operating high quality milling equipment to reduce the scarring and breaking of rice kernels thereby increasing selling prices, and ii) acquisition and use of power tillers and harvesters).

Experience with weather index insurance

During the 2011-12 growing season VFT used weather index insurance as part of a holistic approach to improving the output of a very rural community in the North of Tanzania that engages in irrigated rice production. The community has a population of roughly 43,000 of which approximately 9,000 are farmers. 5,095 of the farmers received training and of those, 537 took loans with weather index insurance that covered flooding. The premium was 13% of the loan amount and covered principal and interest.

The product was structured to provide full coverage in the event that within any 10-day period over 200 mm of rain was collected in the automated rain gauges. What in fact occurred during the germination stage were two extreme flash floods that took place 13 days apart. Although very extensive damage occurred with both floods, in neither case was more that 67 mm of rain collected within a 10-day period. Although the payout trigger was never hit, because of the very credible documented evidence of extensive damage the insurance underwriter agreed to provide the 283 loan recipients most severely impacted the funds necessary to replant and paid the interest on a 2 month loan extension. This, in essence, put the farmers back on their original track.

The result was that despite the damage from the flash floods and only 9% of the farmers in the community actually growing the recommended rice strain, volumes increased from 14,000 to 19,000 metric tons, prices increased from roughly $30 to $47 per 50 Kilogram bag, and the income to the community increased 142% from $7.8 million the previous year to $18.9 million.

Key learnings

Through our experiences we have concluded the following:

1. Climate change is shortening the intervals between drought/flood conditions and increasing the severity, sharply increasing the risks associated with lending to farmers.

2. Costs associated with weather risk mitigating insurance alone in many instances have become so high as to make sufficient coverage unaffordable.

3. To bring the affordability of weather risk mitigating insurance again affordable requires concurrent operational and infrastructural changes that mitigate risk such as better watershed management, environmental remediation and strategies for converting non-shelf stable produce to shelf stable products.

4. Greater care needs to be taken in the product design phase or clients will be very poorly served in the event of catastrophic weather.

5. It is important to work with insurers that are willing to be flexible in the event that farmers are severely impacted yet triggers have not been hit. Without this flexibility, the credibility of the credit provider and the insurer are severely damaged and loan collection will be severely impacted.

6. Maximizing client livelihood outcomes requires a holistic solution that includes:

a. Market knowledge related training.

b. Farmer mobilization into large groups so that smallholders can behave "as if" commercial farmers producing the volumes and quality required to sell in bulk at high prices.

c. Farmer training in the areas of proper inputs and how to best apply them.

d. Availability of loans for input purchases, secure savings alternatives so that increased earnings are judiciously used, and financial literacy training so that informed financial choices are made.

e. Availability of weather risk mitigating insurance.

f. Development and implementation of risk mitigating operational and infrastructural strategies.

g. Linkages to major buyers willing to pay premium prices for large volumes of high quality produce.

h. Values related training that encourages farmers to apply the proceeds of their crop sales to the improvement of their family situation (better education, nutrition, health care, housing, and local road, environmental and watershed related infrastructure, etc.) and to saving for the family's future.

Future

We are taking a three-pronged approach to mitigating the risk associated with rural lending:

1. Continue experimenting with weather risk mitigating insurance approaches including the weather station based alternative used during the 2011-12 season as well as satellite based alternatives. Our dream is to have risk premiums associated directly with satellite measurement of the historic moisture content of the plants within a specific farm's boundaries – so improvements in the infrastructure become automatically incorporated in the premium within a small number of years.

2. Work closely with World Vision to train clients to develop infrastructure and operational approaches that mitigate the potential impact of climate change (such as improved watershed management that reduces the impact of droughts and environmental remediation that reduces the impact of flooding).

3. Propagate our holistic model for agricultural economic development to improve client incomes and improve their training so they apply the increased income in ways that sustainably increase their resilience.

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Contact
www.ferdi.fr
contact@ferdi.fr
+33 (0)4 73 17 75 30