

Final Report for IFAD Project:
“Social Investment in Commercial Market Access Services”

October 2010 to December 2011



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Attachments

Excel Spreadsheet of Deal Impact Database. (Deal_Impact_Database.xls)

Excel Spreadsheet of Five-Year COB Finance Projections. (COB_Finance_Projections.xls)

Summary

The goal of this grant was to support networks of local businesses providing market access services to small farmers attract investments by private social investors to reach commercially viability. It was also to enable local businesses to improve their use of online learning platform for operating its services on a commercial scale. This grant focused its support on the local market access networks in Kenya, Uganda and Tanzania that continued to operate on their own resources following the completion of the Rural Knowledge Network (RKN) Project for East Africa (GCP/RAF/401/IFA) in March 2010.

Over the grant period from October 2010 to December 2011 most of the effort was directed at mentoring the local market access networks to develop and maintain trading records and gather data on the social impact of their services. Efforts to secure private investment capital focused on developing financial propositions and sounding out potential social investors. Work on providing network members more interactive web based learning platform involved collaboration with Webgate the Swiss company that provides the LLL online learning platform. The original idea was to allow members of the LLL platform to interact with it via SMS from their mobiles instead of having to go online. However, recent developments in the available hardware increasingly make classical SMS obsolete for interacting with the web. Smart phones with various browser-type programs can much more cheaply interact with web content directly. So the original intention has now been achieved through the redesign of the LLL platform such that it is easy on a range of mobile appliances.

Of the twelve networks that started in October 2010 three fell dormant and one network completely dropped out. Of the remaining nine networks two are fairly new and yet increasingly active. These networks successfully concluded fifty deals over the project period. Fifteen deals were not successful because they either ran into problems, due to defaults by buyers or internal issues within the networks, or were cancelled because the conditions for initiating them were no longer valid. The commodities traded ranged very widely: common grains, root crops, vegetables, livestock and animal feeds. Produce was sourced from all over Kenya, Uganda and Tanzania to markets and buyers in: Nairobi, Kiserian, Thika, Nyahururu and Nakuru in Kenya; Tororo, Jinja, Mbabara, Hoima, Busia, Masaka, Kampala, Lira and Gulu in Uganda; and Dar es Salaam, Morogoro, Gairo, Rombo, and Makambako in Tanzania. Some 1,600 small farmers were involved in these deals.

The total value of the deals was about US\$ 180,000 of which farmers got as income some US\$ 135,000. US\$20,000 was over and above the going market price. Compared to local market prices offered by middlemen each farmer received on average a 24% price increase. Networks made US\$ 11,000 in commission, with roughly US\$ 8,000 going to the agents and US\$ 2,000 going to the network managers. They turned over nearly US\$ 75,000 in financing to provide 'cash-on-the-bag' payments to small farmers. Perhaps the most important achievement so far is the efficiency of the networks' marketing service. The cost of the networks' transaction security service was, on average, just short of 20% of the total value of the deal. However, the range was very large from 5% to 50%.

Our financing proposition to social investors is for a five-year trial for a 'Cash-on-the-Bag' (COB) financing facility. The aim of this COB facility is to increase smallholder farmers' income by supporting traders switch from their buy-low-sell-high business model to a commission based service model linked to farmer price. Experience so far suggest that a COB facility could operate with an average loan of US\$ 3-4,000, recover its loans within 3 weeks and charge interest @ 1% week and still be substantially cheaper than local money-lenders. The Facility is expected to be capitalized at US\$ 1.6 million with around US\$800,000 equity

share capital from social investors and a similar amount of bank loan finance paying 12% pa interest. Operating initially through ten networks and growing to twenty-eight by year five – the facility is projected to make around 5,000 loans with an aggregate value of US\$ 15.6 million in the first full year of operation with the potential to increase to 16,500 loans with an aggregate value of over US\$ 52 million after 5 years.

At these projected levels of operation, the COB fund would record an operating profit of US\$ 226,000 in year 1, increasing to over US\$ 1 million in year 5. The profit would cover the overhead cost of managing the fund. The fund would comfortably service the projected bank loan. This proposition received considerable interest from a wide range of social investors and commercial banks. Techfortrade, a UK based social investor, is committed to take up the challenge of establishing a trial COB financing facility. ResponsAbility, a Swiss social investment fund manager, is also interested to participate. ABiTrust, a Ugandan social investment fund manager, has expressed interest to invest in the fund. Commercial MFI's, like Micro Africa Ltd and Krep in Kenya, have indicated they would make funds available as have Stanbic and Equity Banks.

Our experiences show that the TSS/COB business model is commercially viable. However, that is only true when a range of required conditions are in place and work reliably. One critical internal condition is the required skills and behaviour of the network managers and their agents. Another set of conditions is crucial logistics around transport, infrastructure and money transfers. These logistics need to be brought under better control for making a good case to social investors. The implication of this is that the TSS/COB operations are still in the pre-commercial phase and cannot yet be fully commercially financed, even by social investors.

We conclude that the transition to fully commercial operations will be gradual. Skill development and taking care of the logistical challenges is still in the pre-commercial phase, while some operations are already going commercial. Today, COB financing itself can switch from grants to loans for those deals operated by experienced network managers, while deals by others who still need to learn (ie. make their mistakes) are too risky to operate on a loan basis. This begs the question of how financing for TSS/COB to reach commercially viable scale can be organized. It is obvious that purely commercial funding at present is not feasible. However, loans must start on those aspects that have manageable risks. We therefore conclude that a close interaction should be established between agencies providing grants for capacity building and R&D and agencies providing loans. We propose to reach for a situation where grants and loans mutually leverage each other in a clearly defined private-public co-financing venture. The provision of grants by donor agencies for capacity building and R&D would lead to social investors providing loans for equipment and operations, and vice versa the provision of loans would give donors the security that their grants will lead to commercial competence and thereby sustainability of the venture.

Introduction

The goal of this grant was to support networks of local businesses providing market access services to small farmers to attract investments by private social investors to reach commercial viability. It was also to enable local businesses to improve their use of Information Communication

Technologies (ICTs) to manage the required databases for operating the

network and its services on a commercial scale. The grant targeted small farmers and rural entrepreneurs organized into local market access networks in Kenya, Uganda and Tanzania. Agridea managed the grant.



The objective of the grant was to assist the local market access networks to:

- Prepare financial projections for social investors based on trading records.
- Secure private investment capital to expand their operations to commercially viable scales.
- Achieve greater interactivity with web-based learning services for rural entrepreneurs.

This grant focussed its support on the local market access networks that continued to operate on their own resources following the completion of the Rural Knowledge Network (RKN) Project for East Africa (GCP/RAF/401/IFA) in March 2010. Thirty leading members of these networks in Kenya, Uganda and Tanzania met from the 17th to 18th March 2010 in Nairobi to take up the challenges of reaching commercial viability. They made two important decisions. First, they recognized that of all the business opportunities developed by the networks the greatest potential for commercial viability came from brokering secure transactions with 'cash-on-the-bag' payments to farmers. Second, they recognized that private investment would be needed for the market access networks to reach commercial viability. The challenge of attracting private 'social' investors required local market access networks to become 'attractive' investment propositions. Network members appreciated that being an attractive investment was not just about producing the right legal documents and having a presence on the ground. Attractiveness also required demonstrations of sound, profitable business operations and financial management practices. Everyone recognized that attracting social investors was going to require new learning by all involved. The network members and managers present identified three key areas in which learning was required as follows:

- First, to make further trials of their secure transaction service and learning to use 'cash-on-the-bag' payments to farmers.
- Second, to learn how to keep trading records and collect information on the social impact of their services on small farmers.
- Third, to learn how to prepare financial plans for their network business.

To address these learning needs Agridea contracted consultants Clive Lightfoot and Ueli Scheuermeier, to continue providing their LLL business-to-business learning platform and methodology to the local market access networks as they had done in the FAO implemented RKN project. The local networks requested the consultants assist them:

- Learn how to develop and maintain trading records, prepare financial projections, and gather data on the social impact of their services.
- Secure private investment capital to expand their operations to commercially viable scales.
- Provide network members greater interactivity with web based learning services from their mobile phones.

This final report describes how the following grant outputs were addressed:

- Ten local networks and their national marketing companies show financial projections and trading records and social impact of their business on small farmers.
- Successful negotiations with social investor agencies providing loans and/or equity for the networks and their operations.
- Updated linkinglearners.net website with new CMS providing direct access to network members and new SMS interface with the Instantteam web service.



The report presents the activities that were undertaken from October 2010 to December 2011. It explains the extent to which outputs were realised and the lessons learned along the way. It also highlights new challenges to IFAD emerging from the lessons learned.

Activities Undertaken

Most of the time and effort in this grant was directed at mentoring local market access networks to develop and maintain trading records and gather data on the social impact of their deals. Efforts to secure private investment capital focused on developing financial propositions and sounding out potential social investors. Work on providing network members more interactive web based learning services involved collaboration with Webgate the Swiss company that provides the LLL online learning platform. Agridea's consultants collaborated with the market access networks in the conduct of all these activities. All relevant documentation and learning can be found on www.linkinglearners.net. Short descriptions of the activities undertaken in these three areas follows.

Mentoring Local Market Access Networks

The mentoring of the local market access networks focussed on how to develop and maintain trading records, prepare financial projections, and gather data on the social impact of their deals. This agenda was later expanded to include developing and maintaining contact details of network members and cash ledgers on the network operational costs.

Agridea consultants provided online mentoring using the LLL platform throughout the grant period as well as make field visits to network managers in Kenya, Uganda and Tanzania from the 14th February to the 27th March 2011 and again from 7th November to 14th December 2011. Each network manager was mentored on how to develop and maintain trading records, including planning future deals, and how to gather data on the social impact of their deals. They were also mentored on how to maintain contact details of their network members and cash ledgers of their network operations. They learned what data is needed for trading records, deal planning and social impact. They designed spreadsheets to capture these data and tried them out with their network members. These data formed the basis of a set of eligibility criteria for local networks to receive social investor funding. They were developed by all network managers in a workshop between the 21st and 22nd November 2010 in Nakuru, Kenya. The eligibility criteria were discussed and further developed in two local workshops run by AgriNet in Uganda and AgriTrade in Kenya. AgriNet's workshop in Kampala from 28th to 29th January 2011 focussed on identifying constraints and success factors of trading records, reviewing network membership and planning deals for the next six months. AgriTrade held a similar workshop for Kenyan and Tanzanian network managers in Nakuru on the 2nd to 3rd February 2011. From March to June 2011 four 'champion' network managers in each of the three countries (Kenya 2, Uganda 1 and Tanzania 1) were supported to assist the other network managers meet eligibility criteria for receiving COB financing. They assisted their peers:

- Successful complete two registered TSS / COB deals.
- Register pending deals for the next four months.
- Update their cash ledger of TSS business operations.
- Update their database of network member contacts.

Agridea consultants made an assessment field trip visiting all network managers in Kenya, Uganda and Tanzania between the 7th November 2011 and 14th December 2011. Trading Performance and impact of their business on small farmers, network members and market efficiency was evaluated as well as their progress towards their eligibility for social investment.

Securing Private 'Social' Investment



Activities to secure private investment capital to expand network trading operations to commercially viable scales focussed on finding expertise to develop investment propositions, drafting a concept for financing and sensitising potential private and public investors.

A small team of experts was put together comprising: Rural African Ventures Investment, McKinsey Alumni Development Group, International Institute for Environment and Development and Traidcraft Exchange¹. Over the year the team evolved with Traidcraft losing interest and, late in the year, 'techfortrade' a UK social investor taking up interest². The team met in London at IIED on 20th October 2010 to identify the proposition that could be made to social investors. In early January 2011 a first draft financial proposition was prepared and discussed with selected IFAD staff in Rome on 12th and 13th January 2011. Following these meetings the draft was updated to incorporate IFAD comments. This draft was shared with the network managers to check the assumptions underlying the financing model during the February to March field trip to Kenya, Uganda and Tanzania. In April 2011 the financing proposition was again updated using comments and data from the field trip. The proposition was looked at again in October to prepare for a presentation to Murdoch Gatwood of Imani development. As a result Imani Development have agreed to assist in the development of business plans for the local market access network companies. The financing proposition was again updated in late October 2011 prior to a final check of data and assumptions with network managers during the November-December 2011 field assessment visit.

¹ Team members are Clive Lightfoot (RAVI), Michael Jordan (McKAD), Alistair Bradstock (IIED), Rob Donnelly (Traidcraft).

² William Hoyle of techfortrade (www.techfortrade.org)

The second set of activities for securing private investment focused on meeting potential private and public investors. Social investors AGRA and ABiTrust were first approached in the context of a NEMAS partners meeting in Nairobi on the 1st to 4th November 2010. Other early meetings were held with Kilimo Trust in Kampala on the 16th November 2010 and their funding partner the Gatsby Trust in London on the 14th December 2010. NEMAS continued to provide further opportunities to share the financing proposition at their partner meeting in Nairobi on the 4th Feb 2011 and 28th June 2011 as well as their workshop between 29th August and 4th September 2011 for IFAD programmes. Other workshops also provided further opportunities to understand the position of social investors. Notable here are meetings with BMG at the Global KM Sharefair held in Rome from 27th to 29th September as well as participation at the USAID/FSD workshop on value chain financing held in Nairobi on the 9th November 2011. Meetings with private banks included Stanbic Bank in Kampala on the 17th March and Equity Bank in Nairobi on 9th November 2011. A small trial loan was provided by Stanbic to AgriNet in Uganda which proved too risky. No further 'commercial' loans will be tried until payment risks are reduced. Three social investors have expressed interest to support the financing proposition. The Swiss social investor 'ResponsAbilty' following discussions in Zurich in early 2011 on 21st February in Nairobi have expressed interest once a turnover of USD 500,000 per year has been achieved. Meetings with ABiTrust on the 18th March and 8th December 2011 in Kampala resulted in similar expressions of interest should payment risks be reduced. The only social investor willing to support the 'Cash-on-the-Bag' financing proposition is 'techfortrade' following an introductory meeting on 17th August 2011 in London.

Providing Interactive Web-Based Learning Services.

Activities to achieve greater interactivity with web-based learning services for rural entrepreneurs started with meetings with Ideso, our Swiss Internet service provider for LLL, in Zurich in January and March 2011. Ideso's recent merger with Webgate opened up new opportunities for collaboration. Webgate sees wider commercial value in developing direct links between smart mobile phones and their Internet platform. Therefore they are prepared to make their own investments in developing this link. Our role was to provide the design requirements and on-the-ground testing.

Webgate proceeded to reconfigure the LLL platform into a new product that takes up all the functionalities of the LLL and adds in more features, most importantly a social network that works similar to facebook. In the background an improved user profiling allows to manage users across various platforms. Throughout this process we were involved as the first user for giving feedbacks on user friendliness and functionalities.

Also a very important feature is that the new platform allows embedding of tailor-made applications for the client. In our case we wanted a tool that allows TSS network members to enter TSS process data online straight into a database. This tool has been established. In effect it replaces the Excel sheets that were filled out for each deal and which did the analysis. That is now possible entirely online.

However, it is also possible to still fill out the Excel sheets and then upload those. The tool automatically converts that data into what goes straight into the database. Also the other way round: The newest information on any deal can be printed out as the Excel sheet everybody has come to know intimately. This feature allows us to work further in organizing the database for the TSS venture, a prerequisite for scaling up the TSS operations.

As before, the developments are on-going. We regularly interact with Webgate in what came to be called "user-led programming", a method for which Webgate also achieved some recognition through awards in their programmer circles.

Achievement of Outputs

Output 1. Ten local networks show financial projections and trading records and social impact of their business on small farmers.



A total of twelve diverse broker networks managed to do fifty-seven successful deals from October 2010 to December 2011. However, during this time three networks fell dormant while one network completely dropped out. Of the remaining nine networks two are fairly new and yet increasingly active.

Trading records for all these deals with analysis of their impact can be found in Excel spreadsheet: Deal_Impact_Database.xls. This database includes registration details of each deal as well as key performance indicators on the impact on farmers, network business and efficiency of the value chain as shown in Table 1.

Table 1. Deal Impact Data and Key Performance Indicators

TSS Deal Registration
Delivery date
Commodity traded
Location Collection
Location Delivery
Client-Sellers
Client-Buyer
Volume of trade (tons or other units)
Volume of trade (other units)
Total value of deal in local currency
Exchange Rate (USD:Local currency) on the transaction date
Total value of deal USD

Impact on Farmers
No. Of involved farmers
Total income of farmers
Total income of farmers USD
Average income of farmers USD
Price others paid per unit (middlemen, etc)
Unit price TSS (including bonus)
Price difference
Price difference %
Added farmer income this deal
Added farmer income USD this deal

Impact on Network Business
Total network commission
Total network commission USD
Commission for Agents working with sellers and buyers
Agent Commission USD
Commission for Network Manager
Network Manager Commission USD
TSS registration management fee
TSS registration management fee USD
COB financing used
COB financing used USD
COB financing in percent of total deal value
COB finance fees paid
COB finance fee paid USD

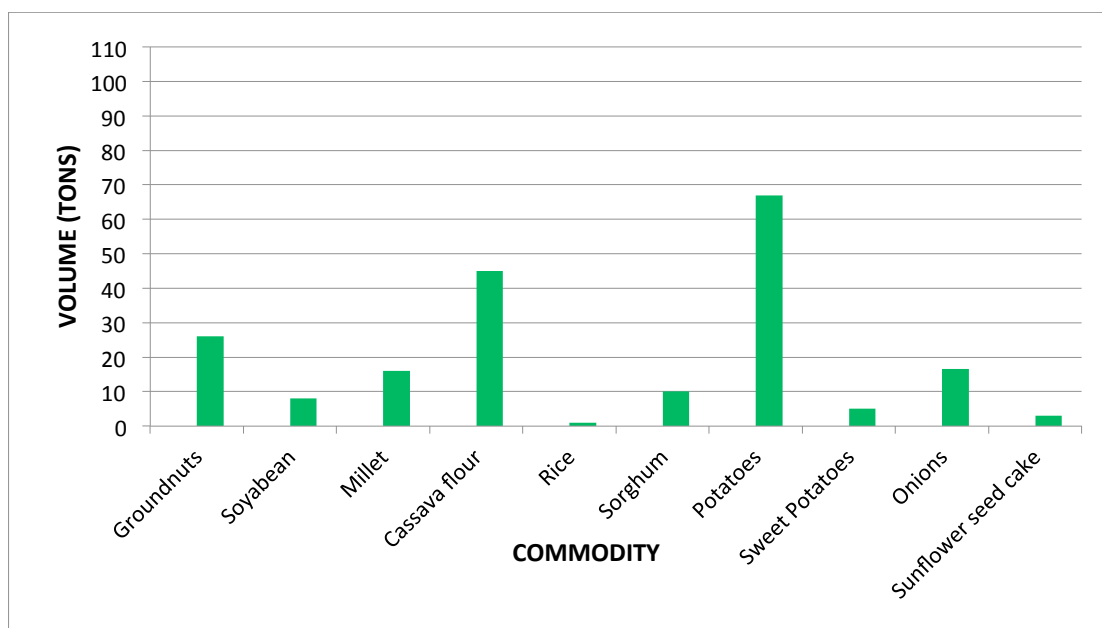
Impact on Value Chain Efficiency
Total middle costs
Total Network commissions
Total costs
Total Cost USD
Total value of deal
Efficiency of deal value = (Total value - total costs) / Total value * %
Efficiency of deal cost = Total cost / (total value/100)

Working from the deal impact data presented in the Excel spreadsheet we see that up to end of 2011 we have the following situation with the deals:

- Seventy-two deals were tracked.
- Three deals ran into problems, either due to defaults by buyers or internal issues within the networks. These problem deals happened while network managers were learning how to cope.
- Twelve registrations were cancelled because the conditions for initiating them were no longer applicable.
- Seven deals were not included in the analysis because they were input supply deals for fertilizer and chicks.
- Fifty deals were included in the performance analysis that follows.

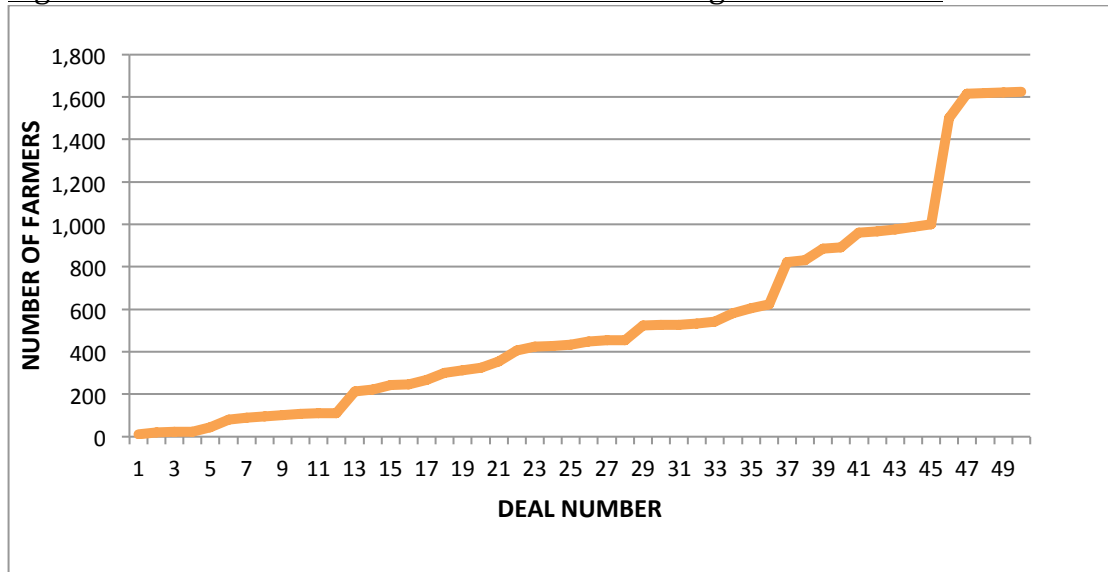
The commodities traded ranged very widely from common grains: maize, sorghum, groundnuts, beans and rice; root crops: round potato, sweet potato and cassava; animal feeds: sunflower cake and soyabeans; vegetables: onions; livestock: cows and chicks and less common crops like coconut. For those commodities traded by weight the volumes traded are shown in Figure 1.

Figure 1. Volumes Traded of Selected Commodities



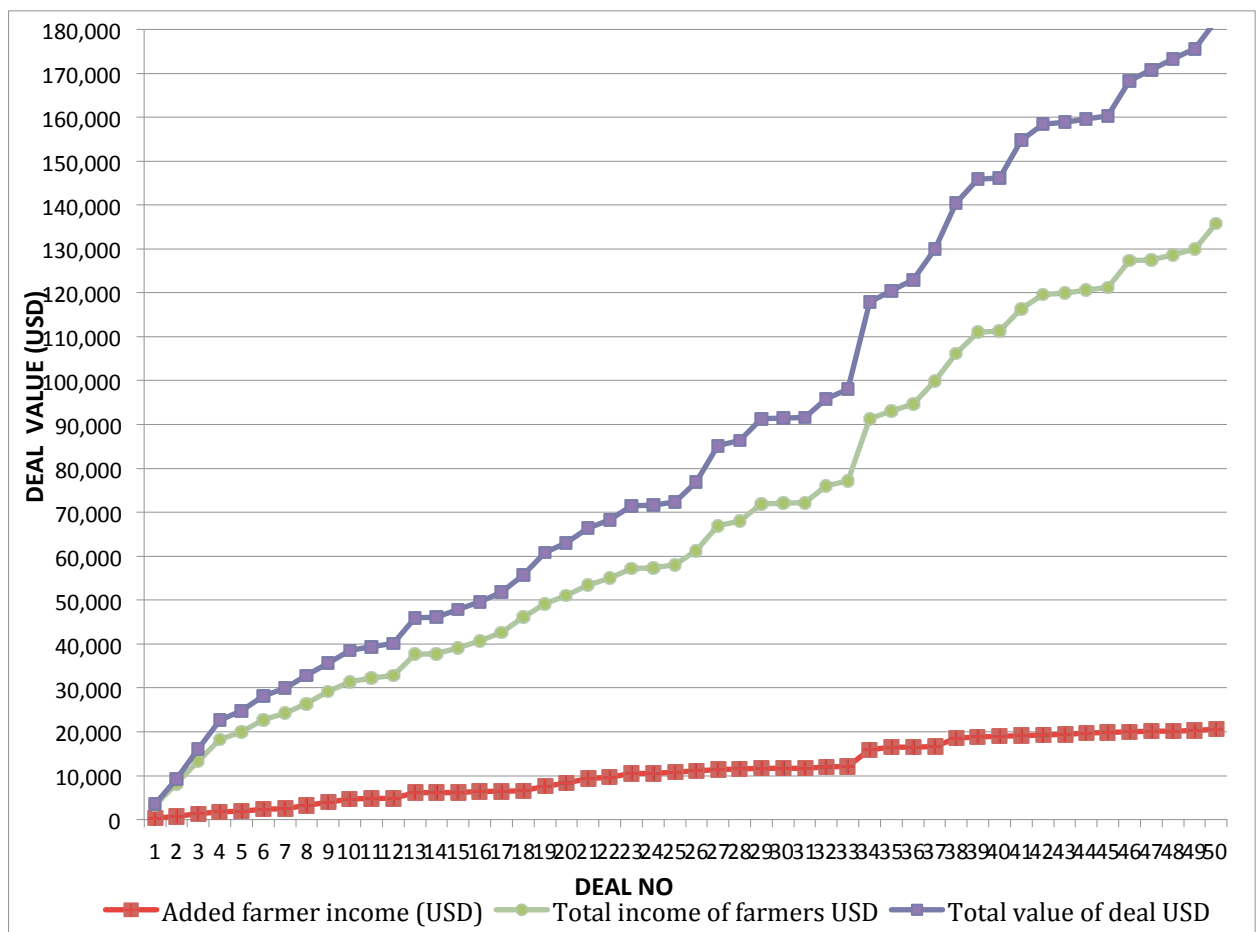
Produce was sourced from all over Kenya, Uganda and Tanzania to markets and buyers in: Nairobi, Kiserian, Thika, Nyahururu and Nakuru in Kenya; Tororo, Jinja, Mbabara, Hoima, Busia, Masaka, Kampala, Lira and Gulu in Uganda; and Dar es Salaam, Morogoro, Gairo, Rombo, and Makambako in Tanzania. Over the period some one thousand six hundred farmers benefitted from the COB deals as shown in Figure 2.

Figure 2. Cumulative Number of Farmers Benefitting from COB deals



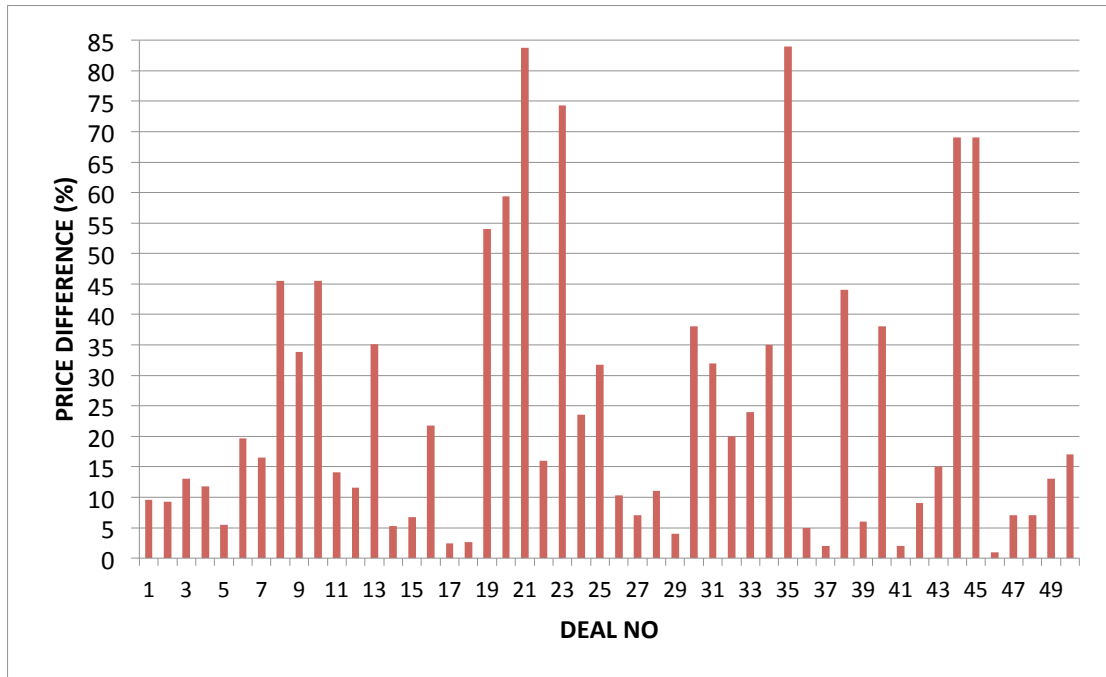
The total value of the fifty deals included in the analysis was about US\$ 180,000 of which farmers got as income some US\$ 135,000 of which some US\$20,000 was over and above the going market price. This gave each of the almost 1,600 small farmers involved an average income of US\$ 84. Figure 3 shows the cumulative deal value and farmer incomes over the fifty deals analysed.

Figure 3. Cumulative Deal Value and Farmer Incomes



Compared to local market prices offered by middlemen each farmer received on average a 24% price increase; an average income rise of around US\$ 20,000. The spread of price differences, however, was very wide ranging from one to eighty four percent as shown in Figure 4.

Figure 4. Price Differences to Farmers in COB Deals



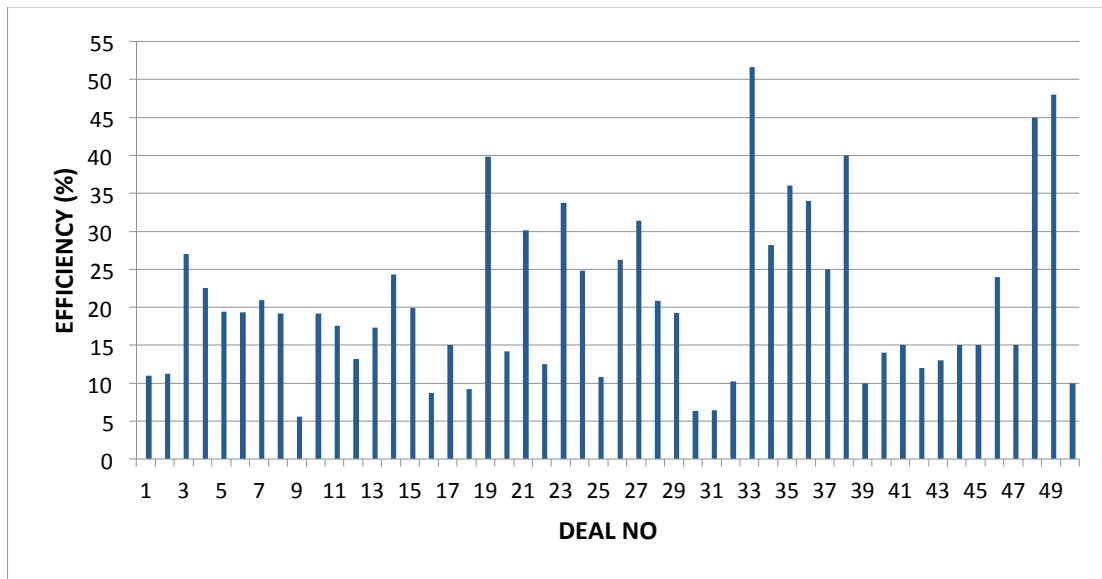
Across the fifty deals the networks made US\$ 11,000 in commission, which is about US\$ 220 per deal. The commission was split with roughly US\$ 8,000 going to the agents and US\$ 2,000 going to the network managers. They turned over nearly US\$ 75,000 in financing to provide 'cash-on-the-bag' payments to small farmers.



Perhaps the most important achievement so far is the efficiency of the networks' marketing service. The cost of the networks' transaction security service was, on average, just short of 20% of the total value of the deal. However, as shown in Figure 5, the range was very large from just 5% in the most efficient deal to 50% percent in the worst case. More often than not

some 80% of the total deal value goes to small farmers. This explains why the service is commercially competitive even though farmers earn more.

Figure 5. Value Chain Efficiency



While it can be shown that this is a commercially viable operation at the level of each single deal and with the agents and network managers, unfortunately the number of deals is dramatically below the commercial target 1 deal per week per network. There was even a slowdown of deals towards the end. The reasons for this have been explored in workshops and on LLL and have been shown to be:

- Many deals ran into problems with defaulting buyers or delaying payments from buyers. Several deals even became victims of criminal scams. This has made network managers scared to venture further for fear of accumulating a history of problem deals. This has been a major brake on the expansion of the number of deals. This problem is deeply systemic and needs to be worked on further through mechanisms that are being worked out on LLL (eg. payments on delivery, LPOs, legal recourse, etc).
- Some network managers ran into problems with the payment discipline of their own agents. Interim "side-usage" by agents of available cash has happened in several cases, indicating a prevalent problem with handling cash. This is the main reason that now we are pushing for a cashless system of payments through mobile money etc.
- The competence to keep on top of the data flow has been lacking in some instances, with Network Managers struggling to keep abreast with the few deals they were managing. This will require further work on user friendliness of the data-input and its analysis for daily decisions. It also means that it takes time to train network managers to learn to manage the deal dynamics in real time.
- Transport has turned out to be extremely unreliable and damaged several deals. Regular delivery in the framework of repeat deals has yet to become a standard, even though this would be the easiest way to achieve larger numbers of deals.

- Money transfers through the financial institutions have turned out to be problematic, with delays, mistaken bookings and insecurities that create confusions that have to be laboriously clarified.

So, while the successful deals did put considerably more money into farmers' pockets and thus proven commercial viability, the required operational securities have yet to be achieved for expanding TSS/COB to commercial scale. These insecurities have rendered it impossible to make any meaningful financial projections based on advance planning. Planning at present makes sense for exploring and negotiating various deal opportunities, but implementation is then still too difficult to schedule reliably.

Output 2. Successful negotiations with social investor agencies for providing loans and/or equity for the networks and their operations.

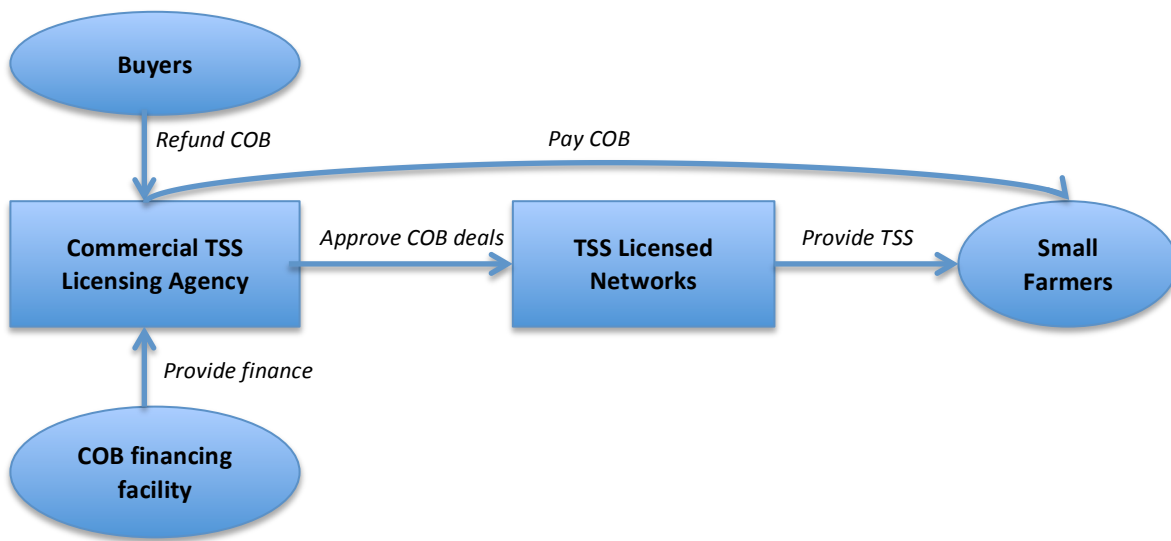


Our financing proposition for a 'Cash-on-the-Bag' (COB) financing facility received considerable interest from a wide range of social investors and commercial banks. Techfortrade, a UK based social investor, is committed to take up the challenge of establishing a trial COB financing facility. ResponsAbility, a Swiss social investment fund manager, is also interested to participate. ABiTrust, a Ugandan social

investment fund manager, has expressed interest to invest in the fund. Commercial MFI's, like Micro Africa Ltd and Krep in Kenya, have indicated they would make funds available as have Stanbic and Equity Banks.

Our financing proposition to social investors is for a five-year trial for a 'Cash-on-the-Bag' (COB) financing facility. The aim of this COB facility is to increase smallholder farmers' income by supporting traders switch from their buy-low-sell-high business model to a commission based service model. The Transaction Security Service (TSS) business model provides traders with an incentive to give farmers the best price possible because their commissions are linked to the farmer price. Higher prices are possible through enhancing value chain efficiency and value addition. The COB financing facility would add a critical new dimension to the ability of existing trader networks to use the TSS/COB business model and offer small farmers immediate payment for their product. The facility will provide short-term credit to approved TSS/COB deals operated by licensed TSS broker networks providing transaction security services to small farmers. TSS licenses and approvals for COB financing are provided by a still to be established commercial licencing agency. The provisional organizational design and operating procedures for the COB financing are shown in Figure 6.

Figure 6. Organizational Design and Operations for COB Financing



The trial calls for a five-year investment in a COB financing facility serving licensed TSS broker networks across Kenya, Uganda and Tanzania. The trial will establish financial and operational parameters for scaling up the COB financing facility to operate throughout East Africa. Financial projections for the COB facility have been prepared based on key parameters derived from the experience gained here. (See Excel spreadsheet of Five-Year COB Finance Projections for details). In particular, experience so far suggest that a COB facility could operate with an average loan of US\$ 3-4,000 (relatively large for rural micro-credit operations), recover its loans within 3 weeks and charge interest @ 1% week and still be substantially cheaper than local money-lenders. See Table 2 on financial parameter assumptions. The direct COB management costs can be reduced to one financial manager (\$50,000/year) and two IT managers (\$24,000/year). Costs are inflated at 8% per year. COB pays the TSS Licencing agency a management fee (\$25,000/qtr) for approving and managing the loans.



The projections assume a loan default rate of 5%, which is better than experience to date. The Facility is expected to be capitalized at US\$ 1.6 million with around US\$800,000 equity share capital from social investors and a similar amount of bank loan finance paying 12% pa repaid over 10 quarters starting in quarter 7.

Table 2. Financial Parameter Assumptions

Parameter	Value
Investors capital \$'000	800
Bank loan borrowed \$'000	800
Annual borrowing interest rate	12%
Average Loan value \$ '000	3.2
Average loan maturity (weeks)	3
Lending Interest rate /week	1.00%
Default rate (per period)	5%
TSS Licence Agency fee/qtr	25
# Management staff	1
Manager cost \$'000	\$50
# IT staff	2
Average staff costs \$'000/year	\$24
Annual cost inflation index	8%
Base running costs/quarter	\$7.5
IT costs/quarter	\$2.0

On these assumptions, the COB facility performance is presented in Table 3. Operating initially through ten of the best established TSS broker networks and growing to 28 by year five – the facility is projected to make around 5,000 loans with an aggregate value of around US\$ 15.6 million in the first full year of operation with the potential to increase to 16,500 loans with an aggregate value of over US\$ 52 million after 5 years. Given the short-term duration of this facility, the total loan portfolio outstanding at the end of year 1 would be about US\$ 1 million increasing to just over US\$ 3 million at the end of year 5. At these projected levels of operation, the COB fund would record an operating profit of US\$ 226,000 in year 1, increasing to over US\$ 1 million in year 5. The profit would cover the overhead cost of managing the fund. The fund would comfortably service the projected bank loan.

Table 3. COB Projected Performance Summary

	Years	1	2	3	4	5
Number of loans		4,882	7,128	9,840	12,952	16,509
Aggregate loan value \$'000		15,621	22,810	31,489	41,445	52,828
Total loans o/s \$'000		983	1,418	1,919	2,493	3,148
Net interest margin \$'000		349	559	840	1,162	1,506
Operating costs \$'000		123	151	178	206	234
Operating margin \$'000		226	408	662	956	1,272
Cumulative margin \$'000		226	634	1,296	2,252	3,524
Op Margin/Loan Balance		23.0%	28.8%	34.5%	38.4%	40.4%
Op cost/Interest income		28%	23%	20%	17%	16%
Debt service (i + repayments)		96	251	378	339	0
Available cash \$'000		322	500	720	976	1,272
Debt Service Coverage ratio		3.35	1.99	1.91	2.88	

The projections are intended to illustrate: First, that COB funds capacity to repay loan measured by Debt Service Coverage (DSC) ratio which is available cash/interest and loan repayments due in period. Second, residual value of shareholders' investment measured by the Net Present Value (NPV) of the residual cash at the end of year five. On this basis, the base case results are satisfactory. The NPV of 5 years cash flow (discounted @10%pa) is \$1.2 million and the minimum (annual) DSC ratio is 1.91 in year 3. A sensitivity analysis based on five alternative scenarios, shown in Table 4, suggests results are relatively robust.

Table 4. Sensitivity Analysis Scenarios

Sensitivity	Changed Assumption	min DSC ratio	NPV \$'000
Base Case		1.91	\$1,254
Low volume	-20% in loan frequency	1.43	\$644
Low lending rate	0.75%/week	1.31	\$453
High bad debts	10% NPL	1.78	\$1,094
High operating costs	10% higher base costs	1.83	\$1,162
Higher borrowing cost	5%/qtr	1.6	\$1,122

COB results are sensitive to a 20% drop in loan frequency or a reduction in the lending rate to 0.75%/week. In either case, the Debt Service Coverage (DSC) ratio falls below 1.5. If both were to occur together COB would be threatened. COB is less sensitive to a 10% bad debt ratio or high operating costs and borrowing costs. Note that social investors still hold 50% share capital in the COB.

If the projections are validated by the results of the trial, a good case can be made for the commercial viability of a scaled up COB fund based on the TSS business model. The TSS business model can be readily expanded by increasing the number of networks and expanding the membership of existing networks. The trial will also serve to test the provisional organizational design and operating procedures, shown in Figure 6, and to suggest ways in which they may be improved.

Negotiations with public and private investors so far have revealed the importance of mutual leverage of financial support. While social investors see the COB financing facility as an 'investable' business model they remain concerned over capacity of rural entrepreneurs and value chain players to scale up the TSS/COB business model. There is also concern over the potential risks of defaulting payments. Social investors have made it clear that they do not want to invest in getting a business started. Rather they invest in helping a viable business grow to larger scale. Public or private capital to grow new ventures to commercial viability remains a gap in development financing for 'Bottom-of-the-Pyramid' businesses. Sorting out how public investments can be directed at building the capacity of local entrepreneurs to scale up the business to commercial viability remains a challenge.

Output 3. Updated learning website providing direct access to network members through new SMS interface.

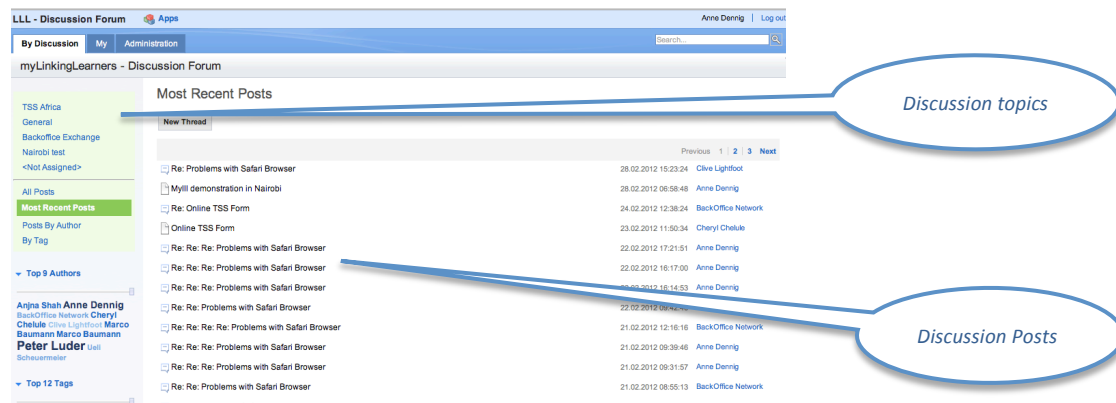
This output must be seen in line with the decision of Webgate to redesign the LLL platform and where we were intimately involved as first users giving feedback. The original idea was to allow members of the LLL platform to interact with it via SMS from their mobiles instead of having to go to an internet cafe and go online. However, recent developments in the available hardware increasingly make classical SMS obsolete for interacting with the web. Smart phones with various browser-type programs can much more cheaply interact with web content directly, not requiring the programming of any specific interface. Smart phones are making rapid advances in rural Africa. We expect TSS agents to be using smart phones at the least, if not tablets, etc.

So the original intention is now being achieved through the redesign of the LLL platform, which is also being designed such that it is easy on small-screen appliances that we expect to be used by the people involved in TSS. Also, the possibilities of embedding tailor-made tools will allow for the design of specific data input directly online from such appliances. The new look of the applications on the 'myLLL' platform are illustrated below:

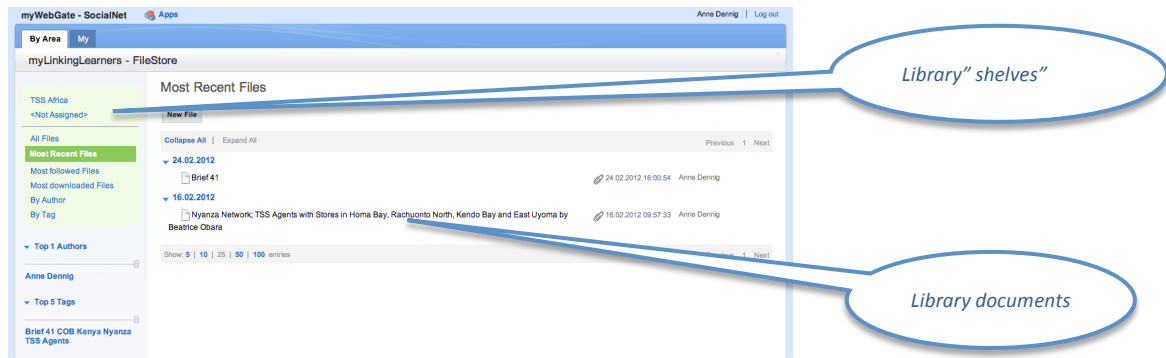
SocialNet Application: Here the News Stream shows posts to and from your Friends



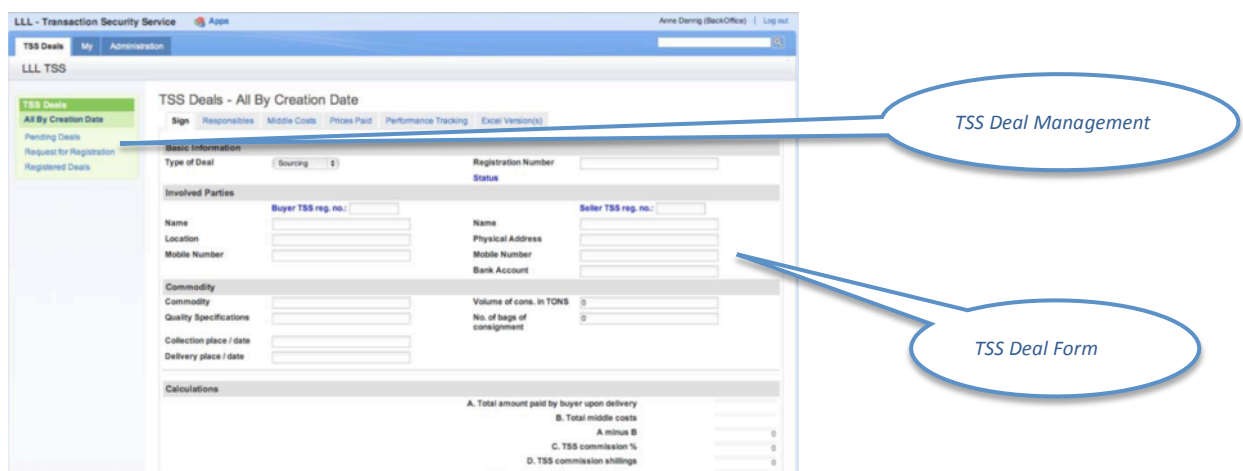
Discussion Forum Application: Here the discussion topic shows all the discussion posts for that topic.



Filestore Application: Here the library shelves shows all the documents on that shelf.



TSS Application: Here the TSS Deals are managed and TSS Deal forms filled.



Lessons Learned

The most serious threat to successfully convince private investors to provide financing is an inadequate demonstration that the business model works. Unless investors see credible trading records, they are not willing to invest in getting businesses started. They are only willing to invest in scaling up businesses that have shown themselves to be commercially viable. The local networks, even with an injection of US\$100,000 from COB project, could not use the revolving fund to build convincing trading records providing COB to small farmers within secure transaction services.

- The first lesson learned that limits private investment was the very low skills of rural entrepreneurs, including some network managers, in money management. Few small rural entrepreneurs track their expenses or make projections on future business. Records are rarely kept and no one uses computers and spreadsheets to keep records. Any money in the pocket or bank is treated as a single resource to be used for the next most urgent expense regardless of whether it is personal or business related. Loans taken for business can end up paying for a personal expense. A further problematic behaviour is with network managers who prefer to hold on to a

crop out of fear of making a loss and hoping to recover any loss later. Rather they should dump their problematic crop, cut their losses, and move on to next deals to recover from any loss. The coaching task on financial management has grown to cover attitudes, basic skills as well as tools for cash control and finance planning.



- The second lesson learned that limits private investment comes from a realization of how in-grained cheating has become among all value chain players. Any new business offering transparent trading operations goes against the past thirty years of

commercial experience. Such businesses not only have to prove themselves but they must also change the 'mind-sets' of farmers, buyers and entrepreneurs. Minds are not going to be changed by sensitization, awareness raising or 'advertising'. The minds of farmers and other value chain players will only be changed by repeated experience of a transparent way of doing business. And that business must bring benefits to all players in the value chain. Providing that experience is expensive as no player in the chain is prepared to discount their hedging against cheating until the business operation is proven to be free of cheating. This implies the development and introduction of intricate and yet easy to establish control mechanisms that ensure transparency and thereby engender trust. The necessity of 'subsidising' the business operation and 'educating' value chain players in the start up phase places an additional financial burden that can threaten commercial viability.

- The third lesson learned that limits private investment arises from poor infrastructure, legal systems and policies. It is well known that poor roads disrupt deliveries in heavy rains. Poor roads also inflate transport costs. Transport itself has proven to be grossly unreliable to the extent that regular deliveries cannot yet be promised. This warrants a closer look on what can be done to make transport more reliable. Lack of adequately weather proofed or secure collection points and village warehouses for small farmers incur risks of theft and spoilage. Trade and produce are also put at risk during border crossings because of inadequate infrastructure and lengthy administrative procedures. Legal procedures and costs are such that farmers will side sell against contracts and buyers will default or delay on contracts and Local Purchase Orders. When the police are involved costs can quickly escalate. Not only is legal redress unattractive so are debt collection services when the amounts involved are small. A further source

of risk arises from government policies and regulations. An export ban imposed without advance warning on the back of food security policies injects uncertainty into what is already a risky business. The good intentions of government regulations backfire when they become opportunities for corruption. Private investors need to see measures in place to address these key sources of risk.

- The fourth lesson learned that limits private investment was the low speed and poor security of financial transactions within and between Kenya, Uganda and Tanzania. This inefficiency operates at three levels: bank-to-bank transfers, cash transfers and payment systems. Transferring money between banks and even between branches cannot be achieved online at this time. In spite of repeated promises by banks same-day online transfers still are not available. This means that SWIFT transfers are required which take anywhere between seven and fourteen days. Not only are these transfers very slow in relation to the speed at which trade operates but they are also costly. While the use of mobile phones for money transfers is growing, both access and amounts are limited. Cash, with all its risks, will remain the way farmers are paid for their produce. Nevertheless, work needs to start now on putting in place cashless money transfers. Work on developing tracking systems for cashless payments also needs to start now.

Conclusion

Experiences in this project show that the Transaction Security Services along with the Cash-on-the-Bag (TSS/COB) facility is commercially viable. However, we also conclude that this is only true when a range of required conditions are in place and work reliably. Where these conditions were in place, TSS/COB has been profitable for all involved.



One critical internal condition is the required skills and behaviour of the network managers and their TSS agents. Another set of conditions is the required logistics. It has become clear that a number of crucial logistics around transport, infrastructure and money are critically important. But as yet they are outside the control of the TSS services. These logistics need to be brought under better control for making a good case to social investors. We examine each of these conditions and suggest ways forward here:

- We are experiencing that skills and behaviour for TSS/COB are fundamentally different to what the members in the network have been doing so far in their market operations. Even through they intellectually agree with and appreciate the rules and regulations of TSS/COB, conventional instruction does not work because each situation with each deal is slightly different, and the trainees have to react in new ways. It is almost a prerequisite that the trainees make mistakes in TSS/COB procedures and can then analyse themselves the resulting problems in order for them to grasp and internalize the lessons and change their behaviour to suit the TSS/COB rules with which they agree. This is an iterative process, and it takes time. It also results in some people dropping out of the network who discover that this isn't what they want to do, while newcomers come in! **Social investors need to understand that it takes time to reach enough skilled network members to achieve scale with TSS/COB.**
- Timely deliveries from remote villages to processors remains a critical challenge because transport is unreliable. Too often mechanical or operational problems on the way delayed deliveries even to the point of buyers no longer being able to pay on delivery. Given this situation the most profitable type of deal, ie. the "repeat deal" of regular delivery to processing plants, could not be realised in spite of several attempts to establish them. Some network managers have started to think about operating their own trucks. While this would get transport under control, operating a transport company is a very different type of business with large capital and overhead costs. Rather it would seem a network manager should have a running agreement/contract with well-managed transport companies. Understanding transport issues becomes a prerequisite for TSS/COB. **There**



is an opportunity for a venture that concentrates on providing scheduled cargo services with reliable trucks. Such scheduled cargo services don't yet exist. They would be a solution for TSS. Social investors in TSS need to be aware of the need to build reliable transport.

- Too often weather has rendered rural roads impassable or made it impossible to bulk the produce and keep it safe. Many deals were lost due to these problems. There is not much network managers can do with regard to roads. However, establishing collection points that allow bulking of produce before contracting with buyers for deals is within what we can undertake. **This means structures in the villages that assure safety of the produce while waiting for transport and protection against weather. A social**

investor effort in this direction is already under way with the Swiss engineering company RAPP Gruppe.

- Cash is a problem because it is in such short supply. It will invariably be used for whatever has top priority in the fast changes that happen in rural markets. Recovering cash at short notice when it was used for other interim purposes has repeatedly become a major issue and has hindered transactions to the point of losing profitability. But what alternatives are there? Normal bank transfers are shown to be too complicated, time-consuming (hours of queuing) and unreliable for time-sensitive trading. There are very good reasons why traders have to work with cash in rural areas. Money transfers through the mobile systems seem to show promise. The aim must be to reach a system for cashless transactions where cash goes direct to the final recipient. Efforts are under way to explore and develop this. The main bottleneck for mobile transactions turns out to be the limited liquidity of the cash points in rural towns and villages. There is no easy solution to that. **Ventures need to be designed to develop reliable payment systems for cash on the bag payments. Social investors need to be aware of this. There are efforts under way at present with funding from the social investor Tech4Trade.**

So, while we know that TSS/COB can become a commercial venture, it is still a struggle to ensure the required capacities and logistics that must be in place in the general rural setting. Follow-up efforts need to be made to work on those. We can show commercial viability and competitiveness in field operations of TSS/COB. The struggle is to reach enough scale to demonstrate commercial viability at the large network level, and therefore a case for commercial investments. But, on the other hand we can point out, based on a lot of learning on the ground, what it takes to reach there. The implication of this is that the TSS/COB operations are still in the pre-commercial phase and cannot yet be fully commercially financed, even by social investors.

We come to the conclusion that the transition to fully commercial operations is gradual. Skill development and taking care of the logistical challenges is still in the pre-commercial phase, while some operational aspects are already going commercial, financed by network members themselves at their own levels. Today COB financing itself can switch from grants to loans for those deals operated by experienced network managers, while deals by others who still need to learn (ie. make their mistakes) are too risky to operate on a loan basis. This begs the question how financing to reach commercially viable scale shall be organized. It is obvious that a purely commercial funding at present is not feasible. However, loans must start on those aspects that may already work out. We therefore conclude that a close interaction should be established between agencies providing grants for capacity building and R&D and agencies providing loans. We propose to reach for a situation where grants and loans mutually leverage each other in a clearly defined private-public co-financing venture. The provision of grants by donor agencies for capacity building and R&D would lead to social investors providing loans for equipment and operations, and vice versa the provision of loans would give donors the security that their grants will lead to commercial competence and thereby sustainability of the venture.

ATTACHMENTS

Excel Spreadsheet of Deal Impact Database. (Deal_Impact_Database.xls)

Excel Spreadsheet of Five-Year COB Finance Projections. (COB_Finance_Projections.xls)