



Project Snapshot

Accelerating Microfinance Impact with ICT *Learning from Democratic Republic of Congo (DRC) and Sierra Leone*

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Background

In the 1960s and 70s, organizations like [BRAC](#) and then the [Grameen Bank](#) demonstrated that micro-lending could be an effective and scalable means of fighting persistent poverty. Since then, the “microfinance” sector has exploded, with an army of microfinance institutions (MFIs) now offering financial services - still mostly small loans - to poor individuals and groups. By [one measure](#), over \$30 billion (USD) in “microcredit” is currently outstanding the developing world.

Although the precise social impact of microfinance is difficult to measure, evidence is mounting that access to financial services correlates highly with improvements in key development indicators, including more education, better healthcare, improved conditions for women, etc. If such outcomes weren't incentive enough, several high-profile MFIs have proved that micro-finance can generate potentially [macro-profits](#) as well. Many private banks are now making investments in the space, and MFIs are scrambling to broaden their portfolios by offering savings and insurance services alongside loans. Some champions are so enamored of microfinance and other market-friendly tools as to argue that [they render traditional aid obsolete](#).

On the other hand, most of those with direct experience will attest that the current zeal for microfinance – both on the supply or demand side - may recently have gotten ahead of the sector's ability to deliver. Today, many MFIs are beginning to show signs of [significant strain](#), with low management capacity, lack of widely accepted standards, rapid growth pressure and global recession all taking a toll. As problems have mounted, some now warn that growth pressures combined with a lack of oversight and credible standards are creating a [credit bubble](#) that, when it bursts, will devastate those whom MFIs are intended to help.

The Role of ICTs

Whether the goal is to realize microfinance's full potential or to avoid potential pitfalls, for most MFIs, improving the way they use information and communication technologies (ICTs) is crucial. Today, even the best-managed MFIs working in environments with relatively good infrastructure often struggle to implement MIS systems that are scalable and sustainable. The challenge is even greater in the resource-limited communities where many MFIs find their natural constituents. As Allen Hammond *et al* have [noted](#), “there is still a serious shortage of infrastructure on the ground to provide financial services to the [bottom of the pyramid].”

Fortunately, while building strong institutions can take decades, implementing sustainable ICTs doesn't have to. Affordable and sustainable power, hardware, software and connectivity systems already exist, they are just not widely available, mostly due to lack of local knowledge and limited support capacity.

Inveneo Engagement

Enterprising Solutions Global Consulting recently asked Inveneo to help identify and solve the ICT challenges facing MFIs in two post-conflict countries - Sierra Leone and DR Congo - where they work to build the sector's capacity. We began with assessments of the current use of ICTs among select client MFIs in each country. Despite significant differences between these countries and the MFIs under review, our research found similar challenges in both settings.

1. Electrical grids are predictably unstable where they exist and do not extend far outside the major cities.
2. Even in relatively stable on-grid settings, computing equipment is often seen as unreliable due to problems such as viruses and damage from unstable power. In off-grid settings, computers are either not used or used only for non-critical purposes.
3. Off-grid, the most widely used source of electricity is the small generator. These are often in poor repair or not functional.
4. Where computers are used, they usually run Windows. In all but a few offices, viruses are rife due to a lack of proper administration and/or poor connectivity through which to receive virus updates. In these settings, computers are often so infested as to be unusable.
5. Wired telephone infrastructure, where it exists, is unreliable with virtually all voice calling over mobile networks. Mobile telephone costs are high, however, with bills over \$1000/mo not uncommon for the MFIs we studied.
6. Internet connectivity is limited and costly. Both DRC and Sierra rely on VSAT as the only means of accessing the Internet.
7. Internal capacity to support computers and networking equipment is limited, so systems need to be as durable as possible and outside support is essential.

In themselves, these challenges make it hard to operate efficiently or to build overall organizational IT capacity. For example, even with branches located in a single city such as Kinshasa, it often takes *weeks* for an MFI to roll up its account information for a snapshot of organizational performance due to problems with transporting account info, whether on paper or via USB, to the HQ office across a notoriously congested city. MFIs are reluctant to invest in computer training given the high likelihood of prolonged power outages and computer failure.

Until ICTs are reliable and affordable, MFI services will continue to be concentrated in high-density, urban or peri-urban communities with relatively good infrastructure, while access in rural settings, where services are arguably most needed, will remain limited.

Inveneo's studies were followed by pilot projects designed to test whether more sustainable hardware, software, networking and power solutions can augment MFI performance and capacity. Our goals were to lower overall operating costs, improve and accelerate information flow and increase overall efficiency and growth. Here's what's been done in each country.

Democratic Republic of the Congo (DRC)

Working with our [ICIP partners](#) in DRC ([NEKOTEK](#)) and Rwanda ([Rock Global Consulting](#) and [Great Lakes Energy](#)), Inveneo designed and deployed generator and grid-fed battery backup systems and power stabilization systems in 9 HQ and branch locations; 4 in Kinshasa (Bomoko) and 5 in Bukavu (Mecrebu).

In Kinshasa, these systems now support new, power-efficient desktops, a server, low power printer and CF lighting at each branch. All computers run Windows XP, but using DeepFreeze, which "locks down" system files so that new programs and viruses cannot be installed, either intentionally or unintentionally. This protects the systems and for the first time, loan officers have reliable access to [Loan Performer](#), their Windows-based accounts package system.

In Bukavu, in addition to new power stabilization systems and low-power computing platforms, we were also able to deploy a private, broadband wireless network using low cost and reliable gear from [Ubiquiti](#) to provide access to a central server at the HQ office running [Loan Performer](#). Running a centralized instance of Loan Performer means there's no more need to aggregate data from the branches and managers can just run reports from the system to have real-time visibility of their accounts. This same network also now supports inter-branch calling using open source VOIP software from [Asterisk](#), eliminating the need for costly mobile calls between branches.

Sierra Leone:

Whereas pilot MFIs in DRC were focused in urban settings, those selected for pilot deployments in Sierra Leone - HOPE and Association for Rural Development (ARD) - have HQ offices in the capital city, Freetown, and branch offices in Makeni, some 4 hours "up country." Due to the terrain in Sierra Leone, a point-to-point wireless network was not an option and the pilot deployments were limited to work on power and computing infrastructure.

In Freetown, where existing power and computing systems are relatively strong, Inveneo focused its efforts on providing reliable power backup and grounding for existing system. In Makeni, ARD had a generator that was in serviceable condition and needed only power backup systems. HOPE's branch, on the other hand, was entirely off-grid so Inveneo worked with Energy for Opportunity, our local power partner, to deploy a full solar array and power backup system. Low-power servers and workstations running Windows XP (protected with Deep Freeze) and Loan Performer were deployed for both branches in Makeni.

Training

To help create local capacity to support these pilot projects, Inveneo combined both classroom and hands-on training to coincide with pilot deployments. In DRC, 5 local ICIP partners were trained and certified, including 3 more from DRC and 2 from other countries (Zimbabwe and Nigeria). In Sierra Leone, we trained [5 new partners](#), including one from Liberia. All are poised



to provide support as needed for future deployments, with Inveneo providing backstop technical support as needed.

In both countries, Inveneo also included IT administrators from the MFIs themselves in relevant parts of the training, thereby creating capable “Tier 1” support and establishing a strong link between system users and capable outside support for more challenging problems.

Results

It's been a challenging and rewarding process so far, and detailed outcomes from the pilot projects are not yet available. Still, initial indications are that reliable power, computing and connectivity systems can significantly benefit MFI performance. In DRC, we've heard that Bomoko's branch offices in Kinshasa can now access their Loan Performer system through power outages lasting as long as 2-3 days without having to try to start their aging generator.

To realize the full potential benefits of reliable systems, however, the MFIs themselves must be fully committed and capable of investing in the training required to transition to new ways of working. This, in turn, is a function of leadership and institutional capacity, which ICTs can help to build but will require more significant investment in human capital development.

Working collaboratively with organizations like ESGC, Inveneo hopes to develop a better understanding of the real impact of specific ICT interventions for MFIs. We believe that combining efforts at institution/capacity building with appropriate and tested ICT solutions is the best way to achieve the promise – and avoid the peril – of the rapid expansion of microfinance services in the developing world.

About Inveneo

Inveneo is a non-profit social enterprise whose mission is to get the tools of information and communications technology (ICT) into the hands of organizations and people who need them most: those in rural and underserved communities in the developing world. To accomplish this, we identify and certify affordable and highly sustainable ICT hardware, software and power solutions for organizations that provide vital services – healthcare, education, economic development and relief – to some of the poorest communities in the world. Inveneo delivers these solutions by partnering with in-country ICT entrepreneurs who are trained and certified by Inveneo to design and deploy ICT technologies for challenging environments.

In order to deliver the most sustainable ICT solutions for these organizations, we have developed the Inveneo Certified ICT Partner (ICIP) program, a network of in-country entrepreneurs who we recruit, train and certify to provide local project leadership, installation and ongoing support. The ICIP program is key to the work that we do as it allows local entrepreneurs to access new markets (rural ICT work) and new clients (NGOs, multilaterals, local governments) and it ensures that the money spent on ICT deployments is invested in local companies, growing the skills base.

Inveneo and our partners now provide professional services to deliver turnkey solutions, which can range from a basic site survey, installation and support to complete project design, software and hardware systems integration and project management. Since 2007, we have delivered sustainable ICT systems to organizations in hundreds of communities in Sub-Saharan Africa and South Asia that range from solar-powered computer labs in schools across rural Uganda to broadband networks extending government services and access to information and telephony to rural post offices in Nepal.

Since 2006, Inveneo and our Certified ICT Partners have delivered solutions to more than 300 communities in 23 countries, primarily in sub-Saharan Africa. There are now 64 Inveneo Certified ICT Partners in 21 countries, and we are on track to grow our network to reach 75 partners in Africa and Asia in the first half of 2010. At the end of 2009, Inveneo and our partners have brought access to life-changing ICTs to more than 1,000,000 people in rural and underserved areas of the developing world.

More detailed information about Inveneo and the ICIP programs may be found at www.inveneo.org.

