Access Africa’s Mobile MIS

INTRODUCTION

Over six years ago, CARE, through the SEEP Network, commenced the process of defining performance management metrics for savings groups. Since then, through multiple iterative processes involving CARE, CRS, Plan, Oxfam and Village Savings and Loan (VSL) Associates, the Savings Groups Management Information System (MIS) was developed on an Excel platform and is being used widely by many organizations. To enable data comparisons and performance metrics reporting for savings groups across facilitating agencies, countries and projects, the Gates Foundation funded the development of a web-based Savings Exchange1 (SAVIX). Through SAVIX the Excel MIS forms are uploaded onto a database and, through the website, allow for public queries of data to analyze trends, compare facilitating agency performance, projects or countries across a number of metrics and allow, for the first time, a consolidated global repository for academia, practitioners and donors.

Early in 2011 CARE,2 realizing ongoing difficulties in performance management data collection that the paper and Excel-based MIS present, forged a partnership with ViewWorld3 to develop a web version of the MIS and a Smartphone application for data collection. The Mobile MIS system will allow CARE VSL implementing partners and country offices to upload MIS data to a cloud-housed database through a hybrid approach by uploading of Excel MIS export files. Data can be entered directly onto an offline- or online-available web page and through direct transmission from an Android-based Smartphone application. The system is comprised of a hosted database system that secures all data in the cloud. Data can be accessed either through the web interface or through a Smartphone as seen in the diagram on the right.

The Mobile MIS enables CARE to strengthen the quality of data received and its ability to evaluate the performance of its VSL programming by region, country, implementation channel and trainer level. The Mobile MIS will also allow CARE to incorporate additional features to capture data on critical indicators linked to group performance such as financial linkages, add-ons and social performance. In the future the database housing the performance data will be able to communicate with other databases, such as an impact database, to correlate data and produce combined financial as well as socio-economic analyses of village savings and loan associations and their members.
SMARTPHONE REPORTING APPLICATION

The unique feature of the Mobile MIS is the first Smartphone MIS data collection application. To address some of the data quality issues, CARE and ViewWorld have developed an Android-based Smartphone application for the collection of savings group performance data. One of the major issues Smartphone reporting will address is the common human input errors created at the point of data collection. With built in error calculations and warning messages, the application will be able to alert its users to potentially erroneous data in the MIS and mitigate the transmission of bad data into the Mobile MIS.

A second major issue Smartphone reporting will address is the trainer’s inadequate use and understanding of the performance data collected. Through the application, the trainer collecting the data will have access to all his groups’ performance data and be able to quickly view key performance indicators related to his groups at his fingertips. Supervisors will be able to access the data immediately on the Mobile MIS and send important messages regarding specific issues directly to the trainer’s Smartphone.

The Smartphone reporting will slowly replace the pen and paper reporting used today in the Excel MIS system. The process of first writing reports on paper before typing data in an Excel spreadsheet will be deemed cumbersome and outdated compared to the Smartphone’s ability to gain efficiency in collecting, storing and accessing more accurate performance data at a trainer’s fingertips.

Notes
1. See www.thesavix.org
2. Development of the Mobile MIS and Smartphone application were made possible through funding from CARE Denmark, CARE Norway, The Rockwool Foundation, CARE Australia and The Bill and Melinda Gates Foundation.
3. ViewWorld is based in Denmark.

Technical Specifications

The ViewWorld system is based on Open Source technology with the mobile application released under an Open Source License. The back end systems are developed and licensed by ViewWorld Ltd.

Features of the Mobile MIS System

- Easy reporting on mobile phone
  - Supported on affordable Android phones
  - Allows direct recording of GPS, Video, Sound and Pictures
- Validation of data
  - Ensures that no duplicate groups are created
  - Gives warning and error messages directly on the phone if data is entered incorrectly so that the trainer can correct the data immediately while still with the group
  - A messaging system allows the supervisor to send a report back to the field officer, if it contains errors
- Data entry of paper files offline allows
  - Import of exported MIS sheets
  - Entry of paper-based reports into the Excel MIS sheet for subsequent import to the online MIS
  - Direct data entry onto the database
- Supervisor has live access to performance data on trainers
- User Management
  - The supervisor will be able to see data from his region and trainers
  - The country coordination will be able to see data from projects spanning the whole country and all trainers
  - Access Africa will be able to see all projects across all countries, projects and trainers

Technical Specs

- Flexible data collection
  - Unlimited user-defined fields and data input formats: pictures, video, sound, barcodes, text, numbers, GPS coordinates
- Open Source Android application
  - Runs on Android 2.1 and newer
- Software as a service
  - Cloud hosting with Amazon EC2 / S3 data storage
- Import/export capabilities
  - RSS feeds
  - KMZ/KML for Google Earth
  - CSV import/export
  - PDF export
  - HTML for the Web
  - Software patch will be developed for direct feed of data onto the SAVIX
- Daily backup
- Data security on transfer from any device to web platform
  - SSL encrypted (256 bit AES)
- Native json storage
- LDAP user management
- OpenStreetMap integration