USAID
FROM THE AMERICAN PEOPLE

Expanding Opportunities Worldwide

Mobile Monitoring Applications for Agriculture

FACET Webinar

November 5, 2012

Agenda

Time	Topic	Who
9:00	**Introduction**	Maby
9:05	**Benefits of Mobile Monitoring Applications for Agriculture**	Maby
9:10	**Project Examples**	Alice
9:25	**EpiSurveyor – Mobile Data Collection Tool**	Joel
9:30	**Considerations for Integrating ICT Tools into Project M&E**	Maby
9:35	**Challenges and Lessons Learned**	Alice
9:40	**Looking Forward**	Maby
9:45	**Q&A**	Alice
10:00	**End**	Josh

Introduction

USAID is placing increasing importance on M&E

The USAID Evaluation Policy paper defines evaluation as follows, “Evaluation is the **systematic collection and analysis** of information about the characteristics and outcomes of programs and projects as a basis for judgments, to improve effectiveness, and/or inform decisions about current and future programming.” (our emphasis)

Benefits of Mobile Monitoring Applications for Agriculture

- Less Paper
- Faster Process
- Higher Data Quality
- Fewer Staff
- More timely analysis and action
- Spatial planning capability
- Improved data access and transparency through “cloud” databases
- Tools work “offline” as well as online
- Ability to scale

Project Examples

- Great Lakes Cassava Initiative (GLCI)
- Grameen Community Knowledge Worker (CKW)
- Liberia Agricultural Upgrading Nutrition and Child Health Project (LAUNCH)

Great Lakes Cassava Initiative (GLCI) (2007-2012)

- Objective: strengthen capacity in six Great Lake countries—Burundi, Democratic Republic of Congo, Kenya, Rwanda, Tanzania and Uganda— to combat cassava mosaic disease and cassava brown streak disease pandemics.
- Trained over 3,000 farmer groups and 60-plus partners
- 300 netbooks to run distance learning software for field agents and to conduct field-based data collection for project impact assessment, registering farmers and conducting baseline and impact studies.
- GLCI overall budget = $21M, ICT portion = $300K

Great Lakes Cassava Initiative (GLCI) - Gains from ICT

- Software enabled CRS to answer basic questions for the first time:
  - How many farmers? Where are the farmers?
  - What services did they receive?
- GLCI standardized the indicators across all 60-plus partners, another first
- Gained new capabilities over original approach:
  - Quicker turnaround to get data, enabled faster action and decision-making
  - Collected much more detailed data
  - Spatial mapping
  - Distance learning developed in multiple languages

Grameen Community Knowledge Worker (CKW)

- Through a network of over 800 village representatives (CKWs) in Uganda, the Grameen CKW program provides:
  - market price and weather information
  - farming best practices
  - an input supplier directory
  - Google Trader
- CKWs also run a “business in a box”: off-grid solar-based charging solution and marketing materials, earning up to 40 USD/month[1]

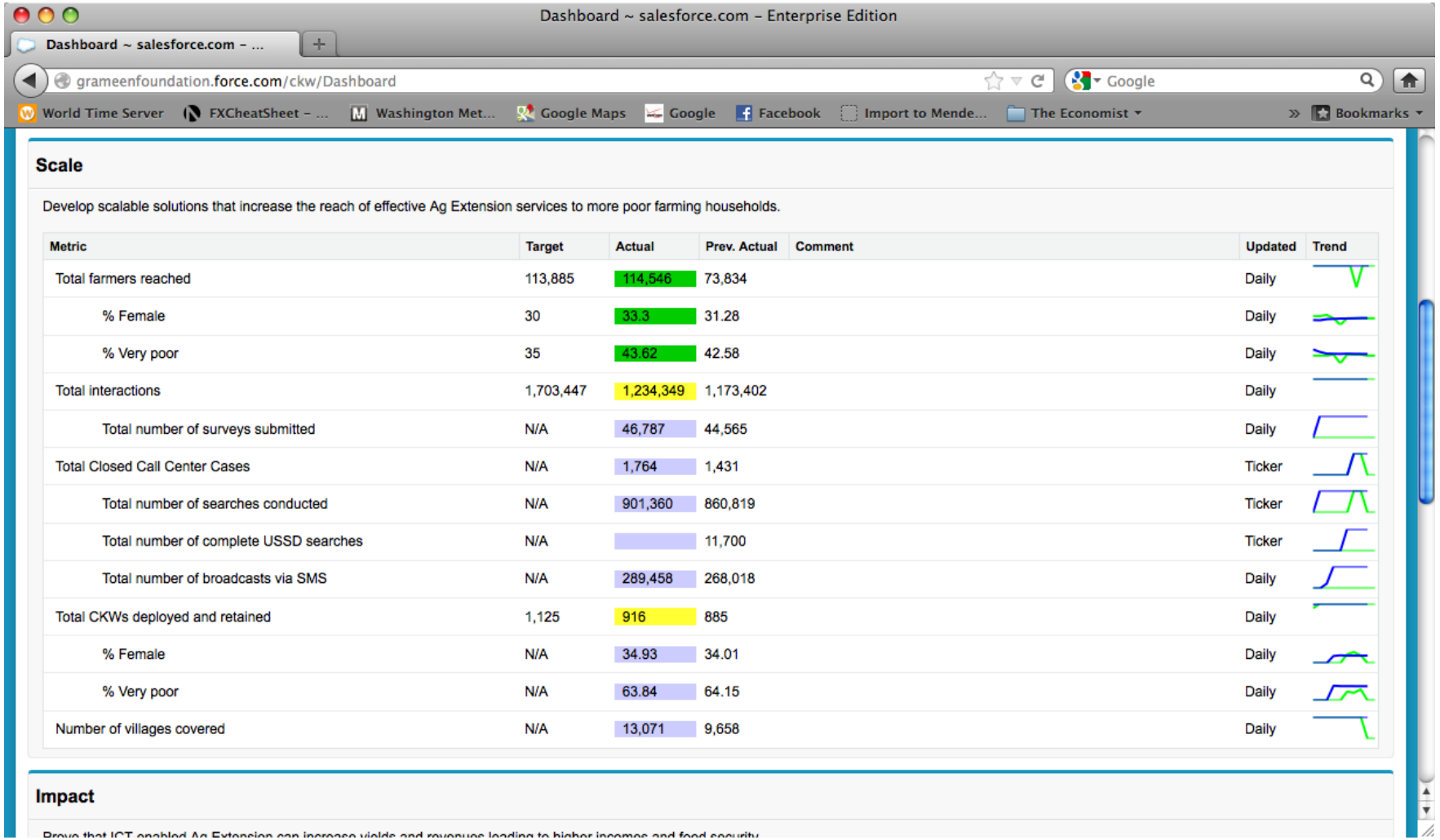
[1]http://www.ictinagriculture.org/ictinag/content/sustainable-solutions-1

Grameen CKW Mobile Apps

- The CKW Program developed a suite of mobile apps for the CKW to use in their work with farmers:
  - CKW Search, to search for information for a farmer
  - CKW Survey, allows CKWs to conduct and submit surveys
  - CKW Pulse, allows CKWs to communicate with each other, make support requests, interface with the customer support system, and track their earnings.
- Based on open source technologies and works with Android or Java-enabled phones
- Recent report shows 22% increase in maize prices in areas served by a CKW and CKWs increase farming knowledge by 17% on average[2]

[2]http://www.grameenfoundation.applab.org/uploads/frontend/mcfile/Blog/Differences_in_Differences_Study_Report_-_Final_July_5_2012.zip

Grameen CKW Dashboard



Scale

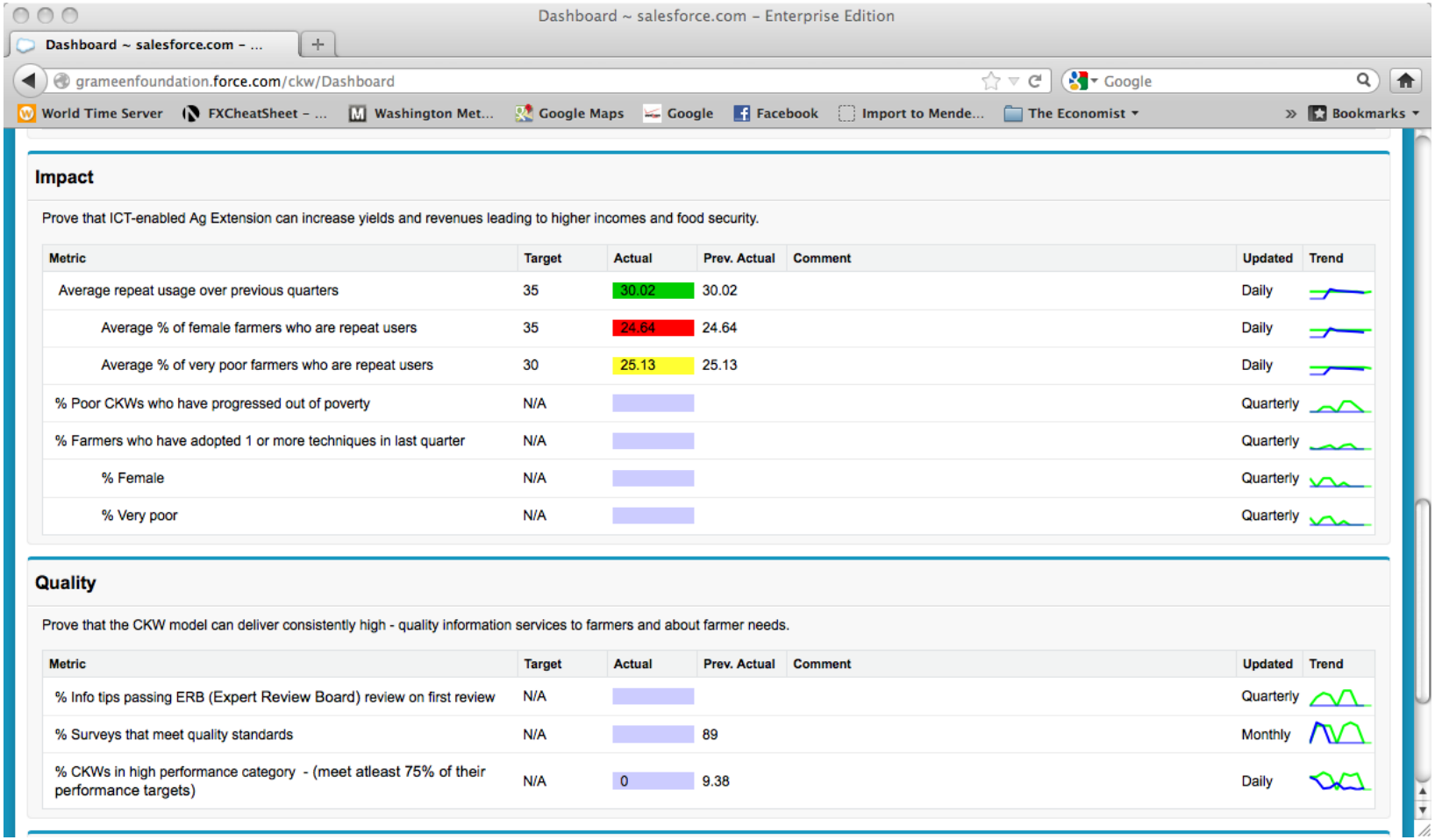
Develop scalable solutions that increase the reach of effective Ag Extension services to more poor farming households.

Metric	Target	Actual	Prev. Actual	Comment	Updated	Trend
Total farmers reached	113,885	114,546	73,834		Daily	
% Female	30	33.3	31.28		Daily	
% Very poor	35	43.62	42.58		Daily	
Total interactions	1,703,447	1,234,349	1,173,402		Daily	
Total number of surveys submitted	N/A	46,787	44,565		Daily	
Total Closed Call Center Cases	N/A	1,764	1,431		Ticker	
Total number of searches conducted	N/A	901,360	860,819		Ticker	
Total number of complete USSD searches	N/A		11,700		Ticker	
Total number of broadcasts via SMS	N/A	289,458	268,018		Daily	
Total CKWs deployed and retained	1,125	916	885		Daily	
% Female	N/A	34.93	34.01		Daily	
% Very poor	N/A	63.84	64.15		Daily	
Number of villages covered	N/A	13,071	9,658		Daily	

Impact

Prove that ICT enabled Ag Extension can increase yields and revenues leading to higher incomes and food security

Grameen CKW Dashboard



Impact

Prove that ICT-enabled Ag Extension can increase yields and revenues leading to higher incomes and food security.

Metric	Target	Actual	Prev. Actual	Comment	Updated	Trend
Average repeat usage over previous quarters	35	30.02	30.02		Daily	
Average % of female farmers who are repeat users	35	24.64	24.64		Daily	
Average % of very poor farmers who are repeat users	30	25.13	25.13		Daily	
% Poor CKWs who have progressed out of poverty	N/A				Quarterly	
% Farmers who have adopted 1 or more techniques in last quarter	N/A				Quarterly	
% Female	N/A				Quarterly	
% Very poor	N/A				Quarterly	

Quality

Prove that the CKW model can deliver consistently high - quality information services to farmers and about farmer needs.

Metric	Target	Actual	Prev. Actual	Comment	Updated	Trend
% Info tips passing ERB (Expert Review Board) review on first review	N/A				Quarterly	
% Surveys that meet quality standards	N/A		89		Monthly	
% CKWs in high performance category - (meet atleast 75% of their performance targets)	N/A	0	9.38		Daily	

Liberia Agricultural Upgrading Nutrition and Child Health Project (LAUNCH)

- USAID/Food for Peace (FFP) project works in the Bong and Nimba counties of Liberia to improve food security and reduce chronic malnutrition of vulnerable women and children under five years old.
- John Snow Inc. (JSI) provides technical assistance to strengthen the supply chain for the food distribution and enhance nutrition and health interventions within the project's health component.

LAUNCH - Beneficiary Registration via Mobile App

- EpiSurveyor used to register beneficiaries
  - EpiSurveyor is a cloud-based platform that enables a user to to design and build data collection forms, collect data via a mobile phone and immediately upload and analyze the data.
- **Wait time** from day of registration to food distribution **reduced from** a high **of 21.4 weeks** in March 2012 using the paper system **to 5.1 weeks** in July 2012

LAUNCH - Quarterly Monitoring Interviews via Mobile App

- To supplement annual household surveys, LAUNCH used EpiSurveyor to interview mothers and pregnant women at food distribution points (FDPs)
- **First quarter interviews** (April-June 2012) of 548 women **enabled LAUNCH to better understand and address beneficiaries' needs and direct the project implementation**:
  - Need to expand FDP sites closer to communities
  - Need to broadcast refresher information at FDP meetings
  - Beneficiaries who attended health education sessions appear to have better outcomes in terms of adoption of improved health and nutrition practices

EpiSurveyor Mobile Data Collection

- Simple to use and set up: no programmers or tech consultants required
- “Like Gmail for data collection”
- Sign up in 1 minute online at www.episurveyor.org
- Start creating forms and collecting data in just minutes
- Used for health, education, agriculture, conservation, and other data collection activities

EpiSurveyor -> Magpi

- Completely new version and new name in January 2013
- Same prices: great free version (used by 99% of users), very cost effective paid versions
- Download a full brief on EpiSurveyor with case studies at http://bit.ly/esbriefpdf

Considerations for Integrating ICT Tools into Project M&E

- Selection of ICTs (hardware and software)
- Type of Environment Conducive to ICT-enabled M&E
- Gender Issues
- Types of Resources Needed

Challenges and Lessons Learned

- Managing team “buy-in” and workload
- Power of standardized information from the ICT-enabled M&E
- Confidence to do more with ICTs
- Linkage between doing baseline surveys, delivering education to farmers, and mapping and tracking progress.
- Sustainability via off-the-shelf, commercial solutions

Looking Forward

- Mobile phone's exploding growth in Africa
- ICTs will be used in most M&E efforts
- More advanced tools are underway:
  - FarmBook, a training tool for market planning and business analysis, and productivity and profitability analysis tool
  - Grameen CKW Dashboard

Q&A

For Additional Information:

- FACET website: http://www.ictforag.org
- E-agriculture: http://www.e-agriculture.org
- World Bank: Source Book http://www.ictinagriculture.org/ictinag/

Thank You!

FACET

- facet@fhi360.org

Maria Bina Palmisano, Senior Director, Monitoring and Evaluation (co-author)

- MPalmisano@acdivoca.org

Alice Liu, Principal (lead author)

- Alice.t.liu@emergingictgroup.com or alice.t.liu@gmail.com

Joel Selanikio, CEO and co-founder, DataDyne

- jselanikio@datadyne.org