When you think with a global mind problems get smaller

Data Collection & Analysis

COSMOS DEMONSTRATION
What is Cosmos?

COSMOS (Coffey Spatial Mobile Solution) is a purpose-built mobile data collection tool and reporting system.
What is Cosmos?

Two main elements

<table>
<thead>
<tr>
<th>1. Data collection</th>
<th>2. Data reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile phone is used to collect data</td>
<td>Data visible on map in real time</td>
</tr>
<tr>
<td>Automatically tagged with GPS location</td>
<td>“Zoom in” allows for detailed view</td>
</tr>
<tr>
<td>Customised survey questions designed specifically for the project</td>
<td>Images can be viewed and saved</td>
</tr>
<tr>
<td>Data is captured offline and uploaded when connected to the internet</td>
<td>Customised reporting options including maps and graphs</td>
</tr>
<tr>
<td>Ability to upload photographs</td>
<td></td>
</tr>
<tr>
<td>Key features</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Intuitive User Interface</td>
<td>Simple, easy to use smartphone app</td>
</tr>
<tr>
<td>Data Security</td>
<td>Safe and secure data on the phone and when stored in the cloud</td>
</tr>
<tr>
<td>Multi Language</td>
<td>Survey input can be captured in any language</td>
</tr>
<tr>
<td>Real time analysis &amp; reporting</td>
<td>Data is available for reporting immediately after synchronisation</td>
</tr>
<tr>
<td>GPS Location</td>
<td>Data is stamped with date &amp; time stamp and GPS coordinate. Cannot be tampered with.</td>
</tr>
<tr>
<td>Integrated Photos</td>
<td>Capture photos using built in camera</td>
</tr>
<tr>
<td>Survey Logic</td>
<td>Caters for all types of survey questions eg. multiple choice, branching etc.</td>
</tr>
</tbody>
</table>
Benefits of Cosmos

- GPS tracking ensures **integrity** of data
- Capability to capture **text and photographs**
- **Consistency** of data collection
- **Flexibility** to build and change survey on demand
- **Safe and secure**, centralised data store
- Easy-to-use and **intuitive** user interface
- **Adaptable** reporting
- Higher survey completion rates
Data Process

DATA COLLECTION
GPS location recorded

INTERNET CONNECTION
Survey data synchronised

SECURE SYNCHRONISATION

DATA STORED AT COFFEY DATA CENTRE

DATA IS UTILISED FOR REPORTING
Mobile Data Capture

Walkthrough
User selects Collect data to begin.

System runs offline and is synchronized when connection is available.
User selects NEW CASE

User can access surveys that are not yet complete

Tracks GPS location and accuracy
User answers specific survey questions
Questions can be multiple choice, user input etc
Keypad is displayed when input is required
Total number of Students?

50
Back
Menu
Survey can include photographs. User can add multiple images.
Photograph can be portrait or landscape
Comments can be added for each image
User acknowledges survey is complete
Survey is stored on the phone until connection is available.
Data Reporting Examples
Data Display - Examples

Completed surveys displayed on map
Zoom in and select survey to view all details
Example dashboard. View was updated in real time as new data arrived.
Livelihoods and Food Security Programme in Zimbabwe (LFSP)

What information is being captured by Cosmos?
Monitoring, reporting and evaluation framework for the programme
Focus areas: Effective ways of supporting livelihoods and tackling food insecurity and malnutrition.

Why is this project unique?
Highly complex survey with 1815 variables

What have the results been like?
2641 surveys completed, largest data collection project to date

What does Cosmos mean for this project?
Early consultations with donors, other programmes and stakeholders in the Agriculture and Food Security sector and the Government of Zimbabwe (GoZ)
Basic Education Quality and Access in Laos (BEQUAL)

What information is being captured by Cosmos?
Initially visit 406 schools, update cost estimates for repairs to the schools
Take “before” photos of the areas needing repair
Will return to the schools in 2016 to review progress and take “after” photos

Who is collecting the data?
18 Infrastructure Technical Supervisors trained

What have the results been like?
Within 1 week: 193 surveys had been collected, 8384 photographs. By week 3: 360 surveys and 18,446 photos had been collected.

What does Cosmos mean for this project?
“As well as permitting early access to the field survey data for analysis, the system will assure our clients the approved works at the targeted schools have been completed.”
Any Questions?