A Database or a Management Information System? Factors to Consider

M&E Workshop
Kampala, Uganda
19, 22-25 January 2018
Management Information System

Management information system (MIS) refers to the processing of information through computers and other intelligent devices to manage and support management decisions within a project/organization.
Management Information System

• To improve evidence-based decision making, it is important to develop a DATABASE (MIS System)
A Management Information System

Tool Development

Data Collection
- Electronic
- Paper
- Bi vs. Single Directional

Data Entry
- Web-based
- Offline

Data Storage
- Relational
- Spreadsheet

Data Use
- Report(s)
- Dashboards
Minimum Requirements for a Database

1. County Code
2. Sub County Code
3. District Code
4. Parish Code
5. Village Code
6. Household Code
7. Member Code

- Training on Livestock
- VSLA
- Sanitation
- Training of Agriculture
- MCHN SBC
- 1000 Day’s Ration
- Registration
Relational Database

Registration
- Demographic
- Livelihoods
- Land holding
- HH size
- Geocode

Pregnant and lactation
- Whether pregnant
- Months pregnant
- Age of youngest child

Interventions
- 1000 Days Ration
- MCHN SBC
- Feeding Demonstration
- Livelihoods diversification
- Marketing groups
- Agri production
- CLTS
- SILC

Participant Information
- Age
- Sex
- Date joined the program
FFP Recommends

- Central Database
- Modular
- Start with basic
- User friendly
- Multiple location access
- Unique Identifier
- Simple Interface
- Easily make changes
- Searching data
- Filtering data
- Sorting data
- Safeguarding pricy and security
Data Collection Tools

- ODK 1.0
  - Kobo
  - Ona
  - CommCare/Dimagi
  - SurveyCTO
- ODK 2.0
- iFormBuilder
- Paper
Data Entry Tools

• Computer based
  – Offline
    • Excel
    • CSPro
  – Online
    • Google Forms
    • Google Sheets
    • HTML5
• Device Based
  – ODK (and derivatives)
  – ODK Scan
Data Storage

• Relational Database
  – Access
  – SQL (MySQL, SQL, PostgreSQL, SQLite)

• Spreadsheet
  – Excel
  – Google Sheets
Data Use

• Spreadsheets
  – Excel
  – Sheets

• Data Viz/Reporting
  – Tabluea
  – Microsoft Power BI
  – Google Data Studio
  – PHP Frameworks (i.e. www.laravel.com)
  – Javascript (i.e ChartJS (www.chartjs.org))

• Statistical Software
  – R
  – SPSS
  – Stata
  – CSPro
Approximate Cost

Materials

- 100 Tablets (200 - 350 USD/Unit) = $20,000 - $35,000
- 100 Solar Chargers (199 USD/Unit) = $19,900

License & Software

- iFormBuilder : 5 USD/Year/User (100 Users) = $500
- Bartender : 1445 USD
- ZOHO Report: 10 USD/month/Administrator (5 Admin)= $50

Website

- Design: 1870 USD
- Repair & Hosting: 348 USD/Year

Staff

- 1 Database Officer & 1 Assistant