

Geo-Enabling initiative for Monitoring and Supervision (GEMS)

Building Capacity among Clients and Local Stakeholders to Harness Simple ICT Tools for Baseline Data Collection, Remote Supervision, M&E, TPM, Beneficiary Engagement, Risk Management & Portfolio Mapping

UR West and Central Africa Presentation
Abidjan | November 20 -22 , 2019

Offered by the World Bank's FCV Group in cooperation with GOST
Supported by the Korea Trust Fund for Economic and Peacebuilding Transitions



For further information, please see [here for a WBG intranet article on the GEMS initiative](#) or contact the GEMS Team of the FCV Group's Operations Support Unit (GEMS@worldbankgroup.org)

GEMS In-Country Training: 3 Days Interactive Hands-on Capacity Building

- Creation and administration of data platform
- M&E skills and digital questionnaire design
- ‘Train-the-trainers’ approach for field data collection
- Data mapping and analysis within the application
- Data export, spatial analysis, Excel analysis
- Interactive design customized to M&E needs of the projects and implementation environment
- System is fully owned and run by client after training and can be used for flexible needs and scaled across operations

GEMS Support: Overview on ongoing Implementation & Expressions of Interest



KOREA TRUST FUND
for Economic and Peace-Building Transitions

Status quo of GEMS implementation:

- > 1,600 local staff & partners trained
- ~ 350 WBG projects covered
- Implemented in 30+ countries
- Various Partner agencies included (AFD, EU, GIZ, IOM, KFW, UNDP, UNHCR, UNICEF, UN-OCHA, ONOPS, WFP, WHO, WWF)

2018 & 2019 VPU Award Recipient

Conflict Hotspots

Major conflict incidents in 2016

Data sources: UCDP & GTD

Client Countries with Access Limitations

- Missions suspended country-wide
- Missions suspended outside capital
- Subnational regions with limited access
- Countries with regional access restrictions

FCV Operational Support

- 📱 GEMS trainings & ongoing support
- 📄 CMU/GP Interest expressed



The boundaries, colors, denominations and any other information shown on this map do not imply, on the part of the World Bank Group, any judgement on the legal status of any territory, or any endorsement or acceptance of such boundaries.

Remote Supervision through Geospatial Tools: Getting Eyes on the Ground

Northeast Nigeria: Joint UN-WB HDP Stabilization Mission



Mafa Water Point

Fully Functional

City of Mafa | Mafa LGA | Borno State | 3,560 beneficiaries

Site Inspection Protocol

Inspected: Funke Mgwale | June 6, 2017 | 9:20 am

-Sample-

Observations:

- The water point has been completed and is intact
- Utilization by the local community is high

Example:

Fadama III project,
operating in Borno State,
Northeast Nigeria



Conflict Hotspot



Refugee / IDP camp



Combining the “Rocket Science,” “Pocket Science,” and “Socket Science”

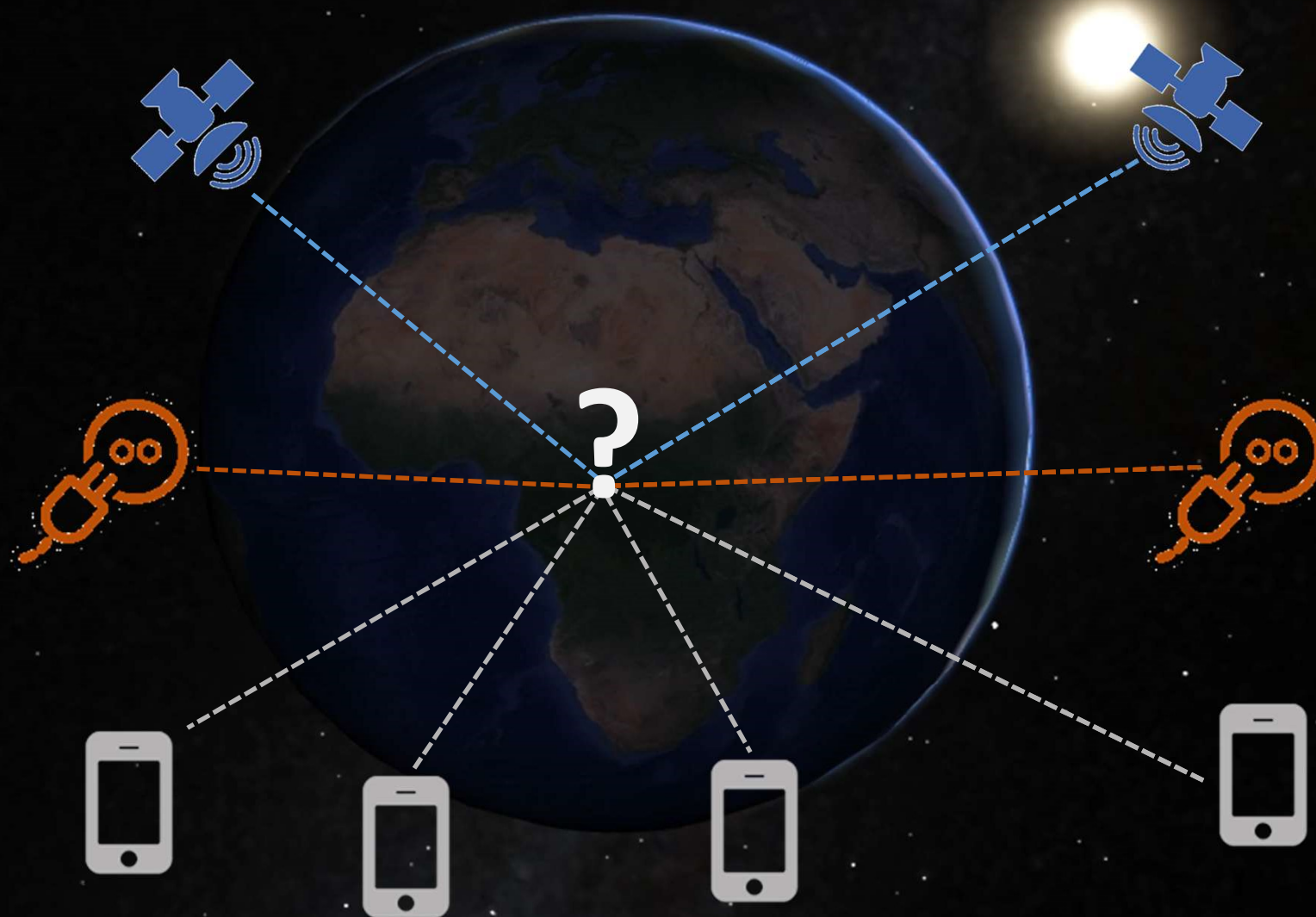
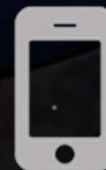
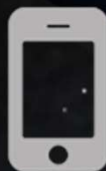
Remote Sensing
Through Satellite
Imagery



‘Plugging In’
Spatial Data From
Various Sources



The GEMS Method:
Systematic Real-Time
Field Data Collection
through Smartphones



The geo-enabling method is cheap, easy to implement, scalable & sustainable

- **Simple and free** technology (ODK)
- **Customized** data forms
- **No internet/network connection needed**
- **Automatic data integration** in centralized MIS or M&E system
- **Automatic mapping** of interventions
- **Easy to scale** across portfolio/partners
- **No ICT experts needed**
- **Building Capacity with clients for systematic and sustainable use**

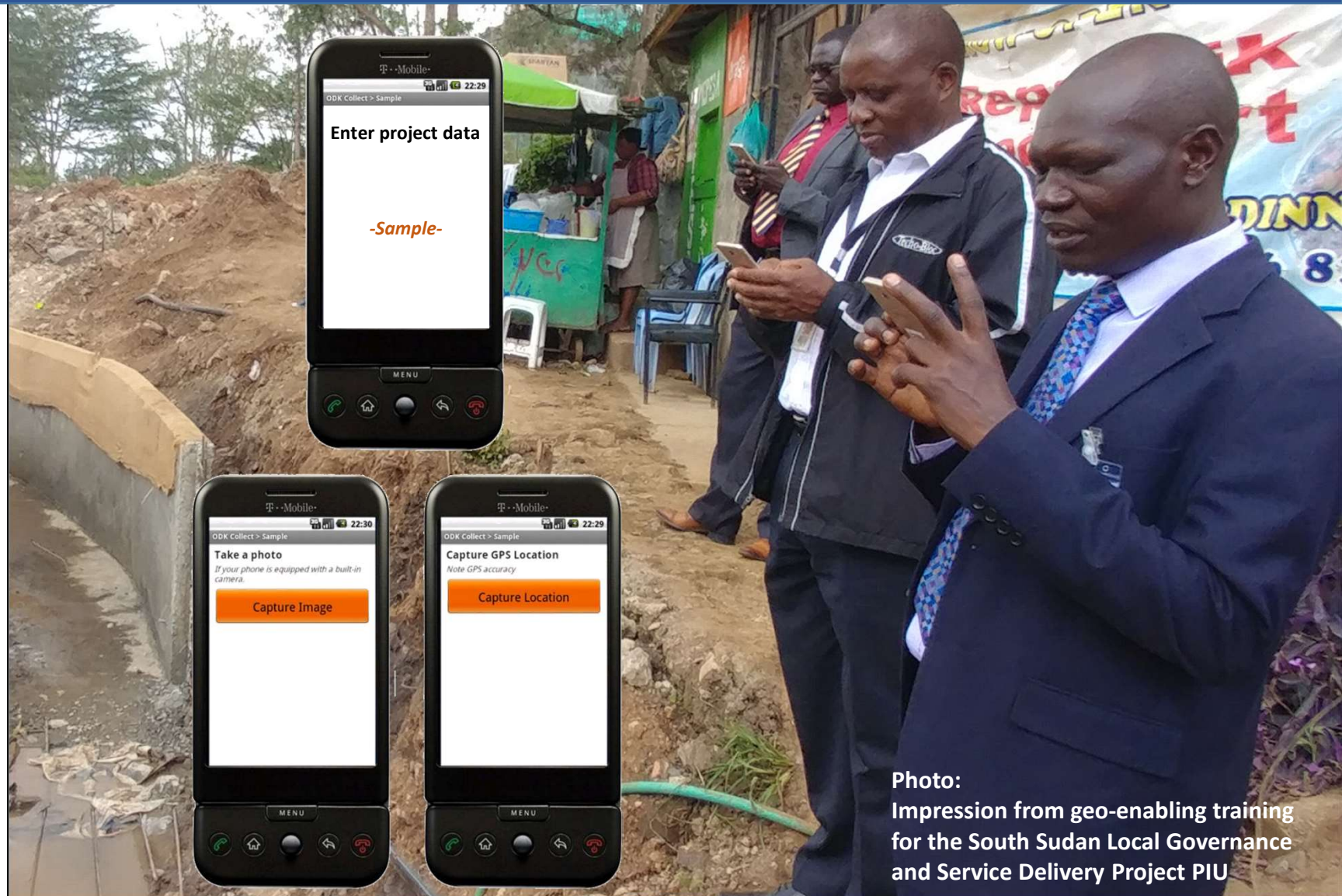








Photo: Impression from geo-enabling training for the South Sudan Local Governance and Service Delivery Project PIU

Geo-enabling for Project M&E: Obvious Examples

- 1. Platform for effective project planning, prioritization, implementation, and M&E**
In close coordination with partners and stakeholders. 
- 2. Verification of physical sites & implementation works and project progress in remote areas**
One system can be used across the portfolio 
- 3. Third Party Monitoring - Remote supervision of date, time, & locations of 3rd party activities**
“Monitor-the-Monitors” approach 
- 4. Verification of interview and survey activities and automated recording of meta data**
Structured collection of all qualitative information and recording of date, time, locations 
- 5. Recording detailed beneficiary data and interactions with beneficiaries**
Systematic methods for tracking community engagement 
- 6. Structured analysis, monitoring, and geo-tagging of points and issues relevant for security**
Remote tracking of security-related dynamics through open source data and partner input 

➤ **What else is needed for your project?**

Geo-enabling: Multi-use Tool for Supervision, M&E, & Communications

- Remote supervision of implementation
- More accountability and transparency
- Structured monitoring of survey data
- Tracking of exclusion and marginalization
- Coordination across projects and partners
- Communication and citizen engagement
- Overlay with other spatial data

➤ Simple ICT-tool for improving M&E, reach, and inclusion

ENTER LOCATION
Rayon, Community, Address SEARCH Filter Results ENG AZE

2,000 Projects
3,519,346 Beneficiaries
\$129,752,534 Invested

INFRASTRUCTURE PROJECTS ⓘ

1139	VILLAGE ROAD
8	CONNECTOR ROAD
263	DRINKING WATER
147	IRRIGATION & DRAINAGE
80	ELECTRIC
79	HEALTH CLINIC
42	SCHOOL
21	KINDERGARTEN
200	COMMUNITY RENOVATION
3	OTHER

LIVELIHOOD PROJECTS

1	GREENHOUSE
8	INCUBATOR
6	MILK COLLECTION
2	FODDER MILL
1	MARKETS

Village Road (Infrastructure)
Sabirabad, Poladtoqayi Community
Project # 2290

2,557 Beneficiaries Community Involved
\$40,228 Invested
Constructed: 2016
Impact Type: Improved Environment
Household Management
Cost Saving
Reduced Travel Time

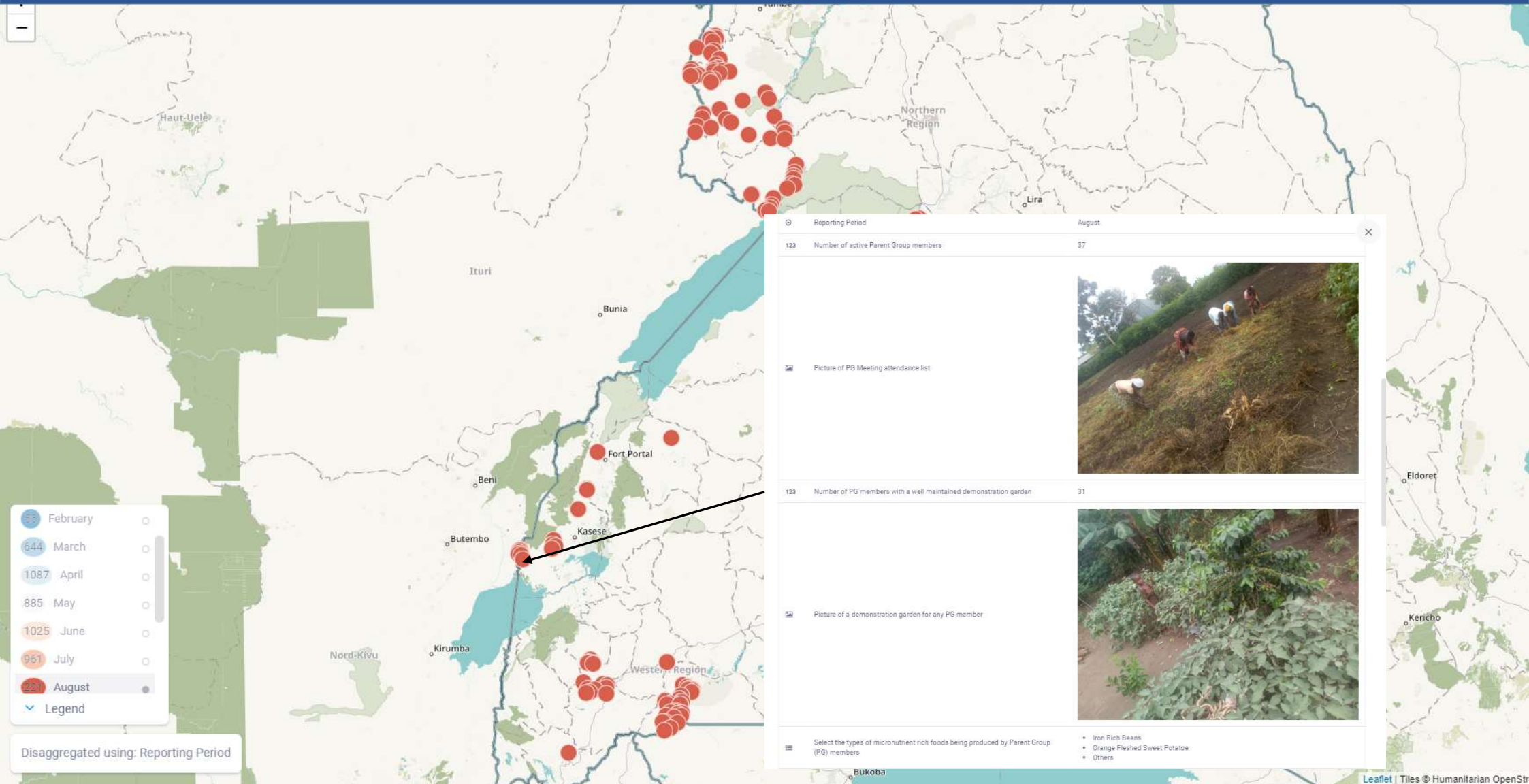
TECHNICAL AUDIT
IMPACT EVALUATION

IMAGERY
0 30 60km

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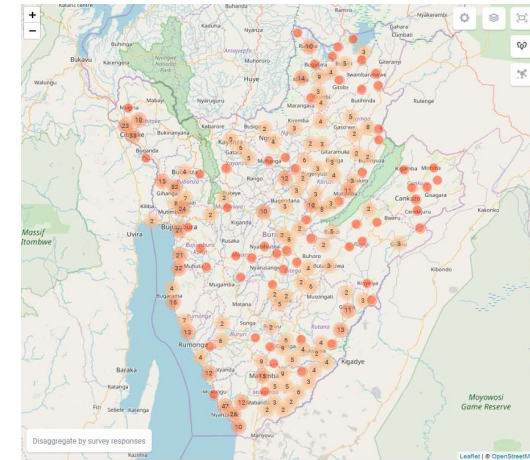
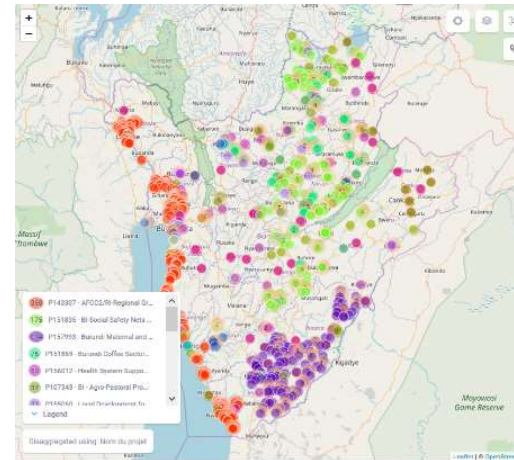
Example of successful application – Azerbaijan Rural Investment Project – see map tool: <http://azrip.net/maps/index.html>

Example: Uganda Multisectoral Food Security and Nutrition Project (UMFSNP)



Examples: Country-Wide and Project specific supervision platforms

- **Burundi:** Portfolio-Mapping and Monitoring Platform
- **Sahel:** Cross-Agency Coordination and Portfolio Mapping Tool
- **Niger:** Project Planning, Monitoring and Evaluation Tool
- **Azerbaijan:** Project M&E and Citizen Engagement Tool
- **Uganda:** Real-Time M&E System to track diverse project components
- **DRC:** Structured mapping of all schools in the country (> 50,000)



Third Party Monitoring: Monitor-the-Monitors

Leveraging geospatial tools for Third Party Monitoring (TPM)

- Applicable to 3rd party monitoring, execution and M&E
- Can be used with government, NGOs, CSOs, & private sector
- Field-appropriate technologies (simple smart phones) and straightforward applications
- Collection and integration of field project data into M&E system
- Automatic monitoring of exact date/time and location (GPS tags) of TPM activities
- Integration of spatial project data with contextual information, (security dynamics, indicators, infrastructure, etc.)
- No need of network connection during data collection
- Possibility for real-time remote data access
- ‘Behavioral impact’ on third party agents



Projects Monitoring & Evaluation: the Traditional Approach

Beneficiaries Households

Data collection (paper-based)

Facilitators

Supervisors

Coordinators

Decision Makers



MILLENNIUM VILLAGE PROJECT
EARTH INSTITUTE, COLUMBIA UNIVERSITY
HEALTH AND NUTRITION QUESTIONNAIRE
FEMALE 15-49 YEAR-OLD MODULE - NAME OF VILLAGE

IDENTIFICATION

SUB-VILLAGE CODE

Chokumbila	6701	Kumagwa	6706	Mologeni	6710
Chumbwa	6702	Mwabela Basikola	6707	Mianga	6711
Gumufira	6703	Mwabela Chioza	6708	Samson	6712
Kambelani	6704	Mgulura	6709	Solomon	6713
Kamela	6705				

NAME OF HOUSEHOLD HEAD _____ HOUSEHOLD ID _____

NAME OF FEMALE RESPONDENT AGED 15-49 YEARS _____ RESPONDENT ID (PID) _____

OTHER IDENTIFICATION NOTES OR DIRECTIONS TO HOUSEHOLD _____

INTERVIEWER VISITS

	VISIT 1	VISIT 2	VISIT 3	FINAL VISIT
DATE				DAY MONTH YEAR 20
INTERVIEWER NAME				INT. NUMBER RESULT*
NEXT VISIT: DATE TIME				TOTAL NUMBER OF VISITS

RESULT CODES

1 = Completed interview	4 = Postponed	7 = Dwelling vacant / destroyed
2 = No competent household member at home	5 = Refused	8 = Dwelling not found
3 = Entire household absent for extended period of time	6 = Partly completed interview	96 = Other (specify)

OFFICE USE ONLY - SKIP TO INTERVIEW INTRODUCTION ON NEXT PAGE

SURVEYFORM CHECKING:

1st FORM CHECK NAME & ID _____ 1st CHECK DATE _____

2nd FORM CHECK NAME & ID _____ 2nd CHECK DATE _____

DATA ENTRY:

1st DATA ENTRY NAME & ID _____ 1st ENTRY DATE _____

2nd DATA ENTRY NAME & ID _____ 2nd ENTRY DATE _____

Page 1



Manual data entry



Manual data check



Decision Making

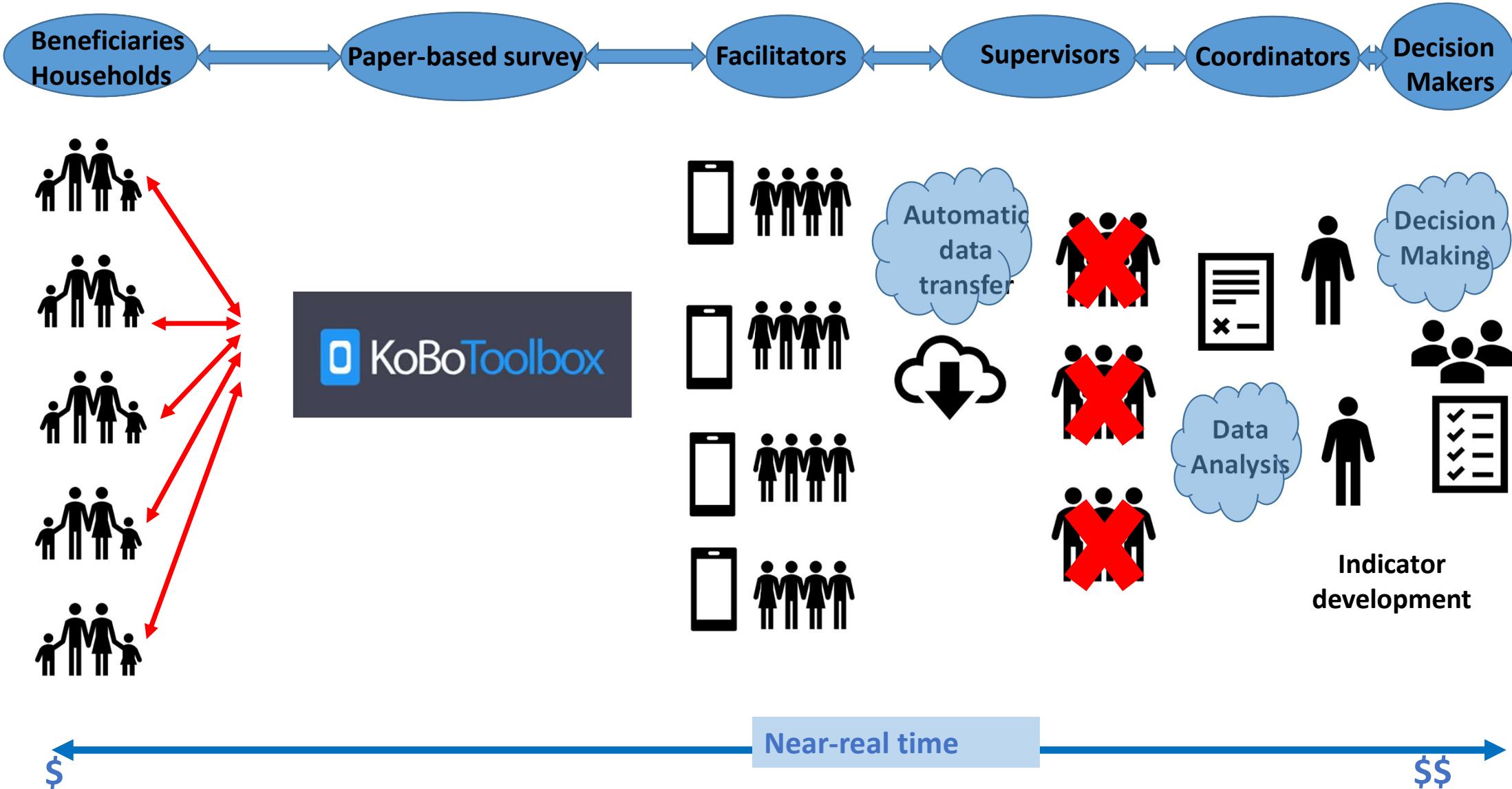


Indicator development

6 Months – 1 Year



Projects Monitoring & Evaluation: the GEMS Approach



Summary of Analytical Process: KoBo Toolbox

Data collection and analysis Steps

1. Create a KoBo Toolbox account
2. Create customized questionnaires/forms
3. Deploy forms on GPS-enabled devices
4. Establish protocol for data collection
5. Train field staff on collection procedure
6. Collect data in the field
7. (auto)-submit completed forms online
8. Access to data by M&E specialist
9. Analysis of data in KoBo & Outside
10. Regular monitoring & evaluation of data
11. Reporting of results/issues
12. Quick intervention based on findings

