



Quadracci
**SUSTAINABLE
ENGINEERING
LAB.**

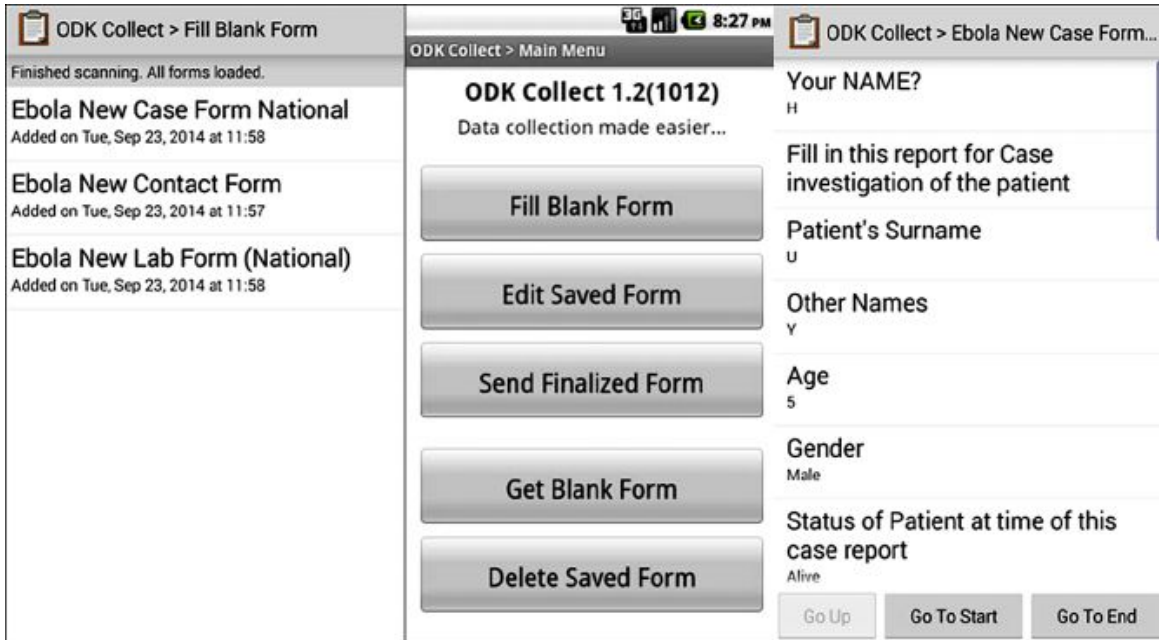
CLIMATE CHANGE:

MOBILE AND IOT SERVICES



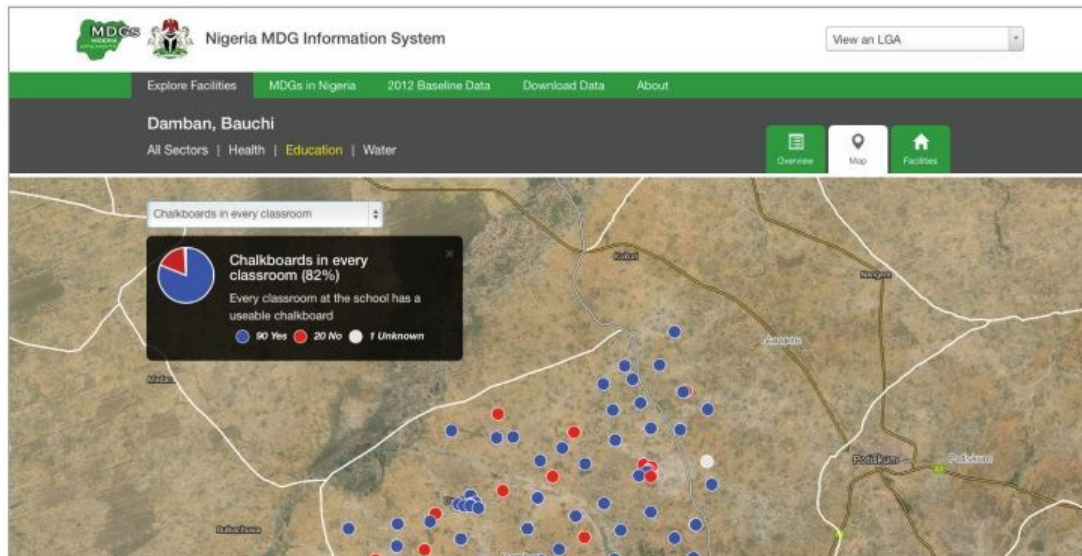
MOBILE I: ODK COLLECT

- A mobile based solution to collect survey information
- Community based survey collection



MOBILE II: FORMHUB

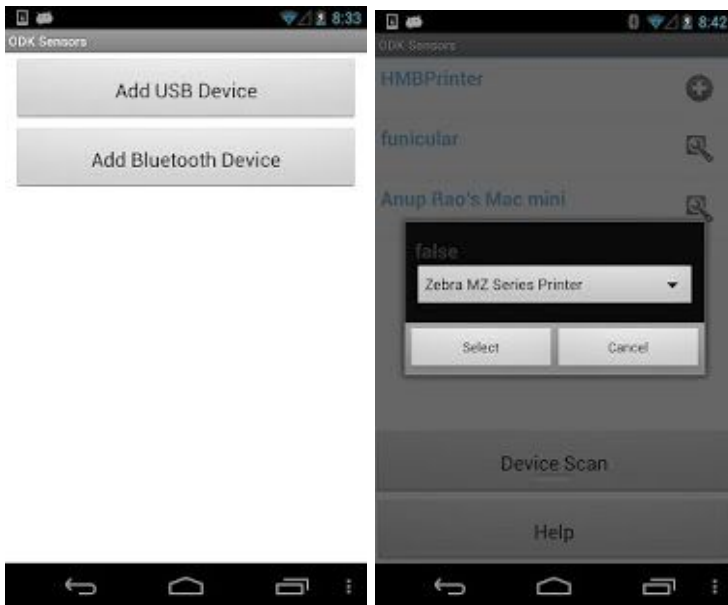
- A web application to visualize data collected by ODK Collect



Education map view displaying number of schools with chalkboards in every classroom in Damban, Bauchi

MOBILE III: ODK SENSOR

- A mobile based data collection tool from sensor information

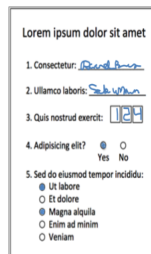


MOBILE IV: ODK SCAN

- A mobile based data collection tool for scanning forms



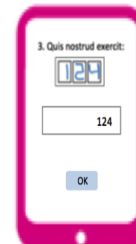
Create scan-compatible, printable form
ODK Scan Form Designer



Subject fills in paper form



Scan form & digitize data
ODK Scan



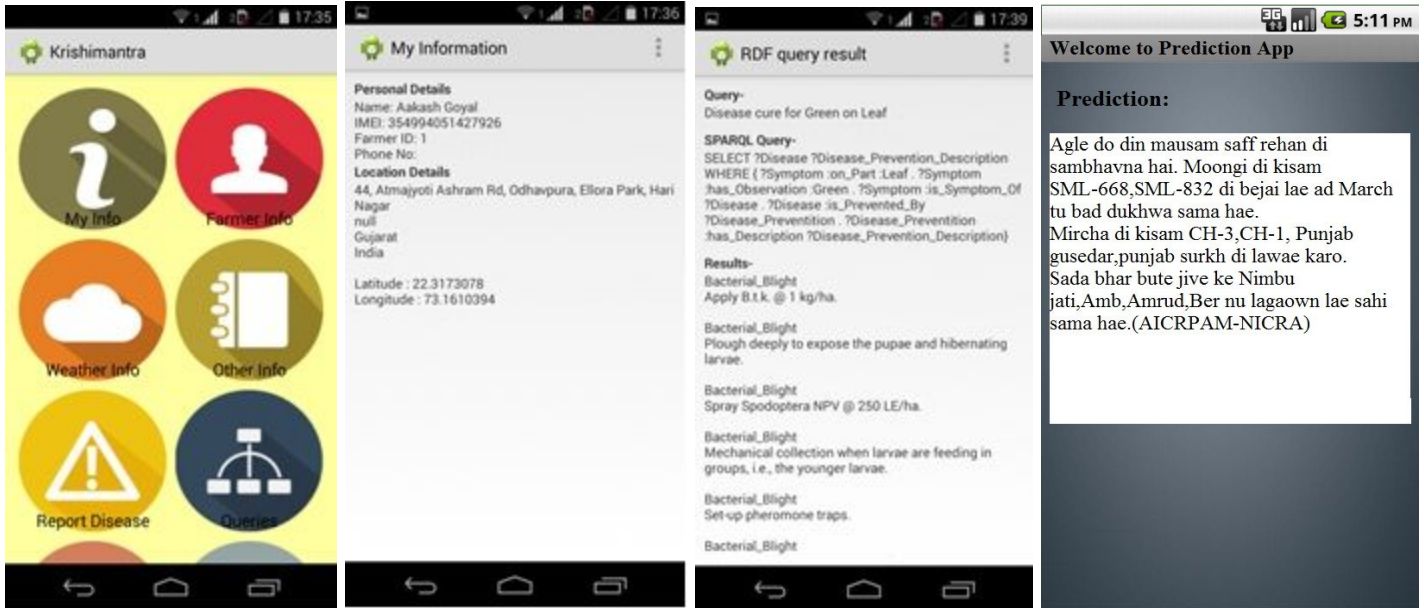
View, edit, & validate data
ODK Survey



View aggregated data & custom reports
ODK Tables

MOBILE V: FARMER FRIEND APP

- Farmer Friend App which is built on the Semantic Web to communicate the information to the field.



MOBILE VI: FORMHUB WITH SMS MESSAGING

- Transmitting and Collecting information from field, even with misscall.

Integrating Formhub With Mobile Applications

Two Way Communication

MESSAGE	RESPONSE
PAU SEEDS	Navjet Singh, Bhamoda, You should plant Basmati 1121 at 4kg per acre
PAU MARKET	Market Price of Basmati is Rs 2000-2200. This will remain stable
PAU FERTILIZER	You should apply Urea 150, DAP 50 and Zinc 8kgs
PAU PESTICIDE	Spray Tilt 100ml per acre this week

One Way Communication

MESSAGE	RESPONSE
PAU IRG 2 30	Thanks For Sending Irrigation Update for control plot to PAU
PAU FERT urea 1 150	Thanks For Sending Urea Update for test plot to PAU
PAU FERT DAP 2 50	Thanks For Sending DAP Update for control plot to PAU
PAU CHM 2 100	Thanks For Sending Chemical Update for control plot to PAU

The image shows three pairs of mobile phone screens illustrating two-way and one-way communication. Each pair consists of a 'Message Sent' screen and a 'Message Received' screen. The first pair shows a message about seeds and a response about planting Basmati 1121. The second pair shows a message about market prices and a response about market prices. The third pair shows a message about fertilizer and a response about applying Urea, DAP, and Zinc. The fourth pair shows a message about pesticide and a response about spraying Tilt. The fifth pair shows a message about irrigation and a response about irrigation updates. The sixth pair shows a message about urea and a response about urea updates. The seventh pair shows a message about DAP and a response about DAP updates. The eighth pair shows a message about chemical and a response about chemical updates.

MOBILE VII: AREA APP FOR INSURANCE

- Area based apps to collect farm information data.

