Hack4Farming Nairobi 2016 Ideas

1) Challenge: How can input providers quickly identify actual or expected weather conditions that represent business opportunities, and move their product to impacted areas?

Example: A dashboard that calculates how many acres are being impacted by dry conditions within 50km of a given stockist, and gives basic statistics about how many farmers are in the area and what crops are grown. This dashboard could be used by seed company managers to make stocking decisions.

2) Challenge: How can seed companies collect, access and visualize transactional data using cloud-based technologies?

Example: A software that allows seed companies to collect and easily access and analyze or visualize their transaction data via a cloud-based database.

3) Challenge: How can seed companies quickly, accurately, and economically gather information about their customer-farmers' needs and their opinions of new products?

Example 1: A mobile data collection system using ground agents and software that automatically transmits time-stamped and location-stamped data from the agents' mobile phones to a secure server.

Example 2: An app through which seed companies can text their clients to request information on their crop yields, pests, etc., and through which the client can respond with information and be paid for their data submissions.

4) Challenge: How can seed companies utilize hardware to remotely monitor seed conditions in client's fields?

Example: A hardware technology + an IoT solution that will allow seed companies to monitor seed conditions (e.g. likelihood of failure to sprout, have low yields, etc.) and send notifications about concerning activity to the seed companies so that they may inform their clients.

Other Potential Topics -

Challenge: How can seed companies utilize the GIS technology to better understand their customer base?

Example: Use GIS technology to map the location of seed company customers by area, and overlay with relevant information such as crop type, customer demographics, weather data, transaction value.

Challenge: What mobile tools can help farmers use new inputs (e.g. seeds) according to best practices?

Example: An SMS campaign that farmers are automatically subscribed to upon purchase of the seeds, which uses icons, pictures, and the read-language of farmers to periodically remind farmers of how to use their new seeds.

Challenge: How can farmers keep track of fertilizer type and application on their fields?

Example: An app that provides information on fertilizer application by the farmer, fertilizer elements (i.e. 0-26-0 or 17-17-17 of –P-K), and their prices, and calculates the amount of each element the farmer has applied, how much they have spent, and what fertilizer they need to use to reach their target of any or all elements.

Challenge: What is the rain-related risk for a farmer's field in the coming week?

Example: An app which combines statistics for the last 10 years of data at a given field, coupled with the 7-day forecast from aWhere. Distribution shops could use this app to inform a farmer of risks to look out for when he or she comes to purchase inputs.