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# NAPP AND RELEVANT TECHNOLOGY - A SUCCESS STORY AN APP TO MAKE GOOD SUSTAINABLE LAND MANAGEMENT DECISIONS. TRAINING AT THE MINISTRY OF AGRICULTURE MAKURDI, MAY 31, 2019

The LandPKS app can be used in any location worldwide. The app helps users make good sustainable land management decisions by assisting them to collect geo-located data about their soils, vegetation and site characteristics, giving back useful results and information about the site to its users.

The training was done for 58 participants (23 farmers, 23 Extension agents, 6 directors, 23 divisional officers from the LGAs, 2 undergraduate and 1 Graduate Assistant from Soil Science department, University of Agriculture Makurdi (UAM, drawn from the 23 Local Government Areas (LGA's) of Benue State in the Middle Belt of Nigeria).

**Indoor activity**

**Installing the LandPKS App Using XENDER to Minimize Internet Use.**

LandPKS was installed on the phones of all participants. Then a PowerPoint presentation gave an overview of LandPKS and its use in crop production. Participants learned how to use LandPKS and questions were taken about interactions with the app and interpretation of generated reports after use on the field.

Participants were provided with training materials downloaded from the LandPKS webpage to support post training practice and general use of the app.

The participants showed willingness and eagerness to learn. It was a very interactive learning experience as everyone was carried along. The Xender app was used to transfer the LandPKS app to the phones of participants limiting data usage for login of the site details (at the pit) to facilitate the entry of site characteristics. Although Internet access was an issue for some participants, over 12 of the two groups of about 25 each, had internet connections and could use the LandPKS app installed. Participants were paired (with and without smart phones) to follow the demonstrations. Those without smart phones promised to upgrade their phones.

**Outdoor activity**

A pit was excavated, followed by a practical demonstration of the use of the LandPKS app. Dividing the class facilitated visual learning, proper hands on and maximal interaction. A step by step guide of the use of the LandPKS app was delivered as participants carried out a task and got a report generated for the task on site (The report was named **manr**).

**In the field training**

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At the pit, participants were shown how to collect soil samples at each depth, using the LandPKS app and how to generate their report with emphasis on proper labelling of each layer.

**Resumption of Indoor Activity**

Indoor activity resumed to discuss the report and its relevance. The report generated by the LandPKS app for the site was taken in conjunction with the farmer manual. The manual is a guide to account for physical properties of the soil and fertilizer use in maize based systems. The app and the manual were used to make decisions on increasing agricultural production.

**Interactions /Questions/Understanding and Interpreting the Report Generated.**

An interactive session held and the results generated by the LandPKS app were explained in detail. The participants were relieved that the LandPKS app could be used without internet access and that soil characteristics and climatic data can be generated on the spot in the field.

**Interactive session**

A number of Farmers and extension workers requested that manuals be prepared for other crops of interest such as soybeans, yams, groundnut and cassava. They were excited to learn that the manual for maize based systems was being translated into the local languages of Benue State. A suggestion was made to create a WhatsApp group for exchanges on issues relating to soil fertility and the LandPKS app. This training exercise is a demonstration of how NAPP Scholars are bringing updated, practical and relevant technology to Nigeria.

By Blessing Agada

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