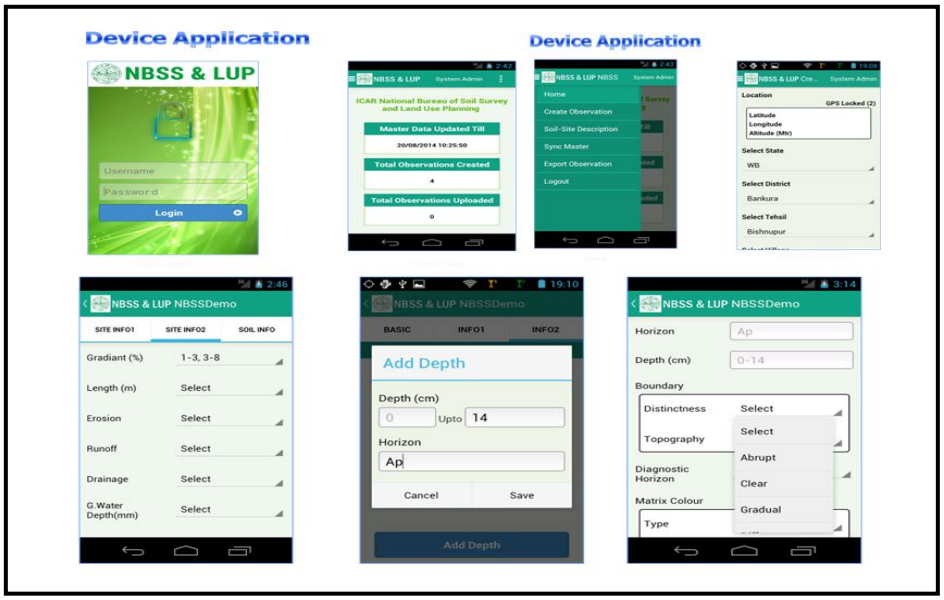
Smart mobile phone for collecting geo-referenced soil database – Bhu-Sandharbhit Mrida Data Sangrahak

ICAR-NBSS&LUP has developed a hand-held device (PDA - WP60) with a customized android application for collecting real time soil data related along with current GPS location (latitude, longitude & altitude). This application also allows user to take geo-tagged photographs with the dataset. Proforma (menus) have been developed in drop down mode to enter the field data for various parameters to minimize the human error. It has also offline mode of working wherein temporary storage facility is available in the PDA. Provision has been made in the device to send the data to the server on availability of internet connectivity. Separate web-based systems have also been developed for individual user and for management of database at different levels for monitoring and report generation. Provisions for entry of laboratory data of physical and chemical properties of soils have also been made to have an integrated database in the server. The hierarchical quality check workflow system from bottom to top is also included to ensure quality data delivery at user end. It can be used for systematic field data collection and real-time transfer to central server with less manual error, accurate GPS location; date and time from satellite, three level data security, instant generation of reports, monitoring of work progress from anywhere through centralized data repository. It has replaced the age old pen and paper based data collection techniques.

(Copy right for **Android based smart mobile phone** for collecting and transmitting geo-reference data from field to data centre **(Diary number 6188/2015-CO/SW).**



Screen shots of Android based smart phone GIS application for real-time field geo-database management

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