Digital Soil Library

This is specifically designed for maintaining and displaying the database of Sujala project – a World Bank funded Integrated Watershed Development programme. In the library the spatial data is created in ArcGIS environment and the Digital Library (DL) software is developed using Visual Studio.NET. **Fig. 1** shows the opening screen of the DL software, where the user has to select the micro watershed and **Fig. 2** shows the soil map of selected watershed. The software displays all the information of the selected land parcel *i.e.* soils, current land use, existing hydrological structures, proposed conservation measures, fertility status and suitability for different crops. Software module is developed to display the village wise land parcels with selected soil or fertility status. Using the software, one can also generate village or micro-shed reports and Excel file with properties of all the land parcels for the selected village (**Fig. 3**). The software also includes the facility to view the photos and pedon description forms of the selected soil series **(Fig. 4).** The thematic maps for depth, LCC, slope, texture, erosion, gravelliness and suitability maps for 11 horticultural crops *i.e.* Amla, Cashew, Custard Apple, Guava, Jackfruit, Black berry (Jamun), Lime, Mango, Orange (moosambi), Sapota (Chikoo), and Tamarind have been deployed . Soil fertility maps have also been added.

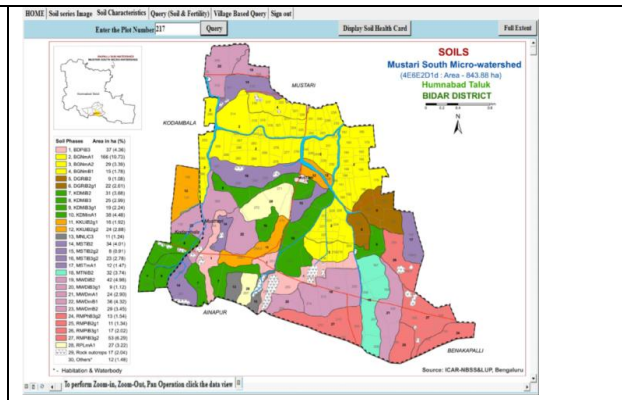**Fig. 1. Opening screen of the Digital Library software**

Fig. 2. Computer screen showing the soil map of selected watershed

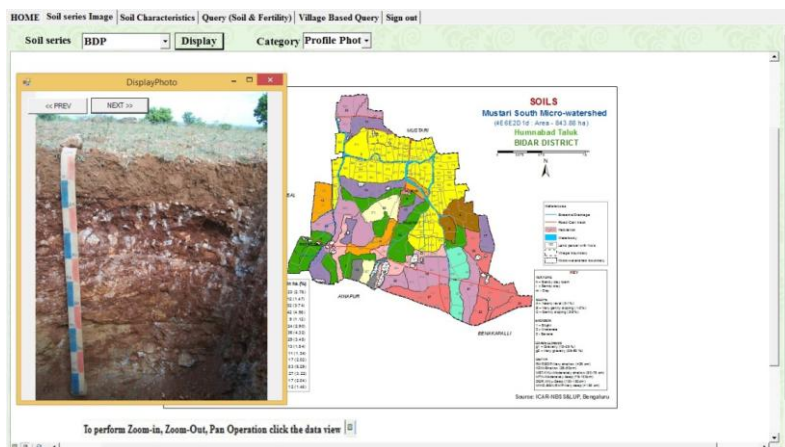**Fig. 3. Computer screen with the results of the selected village**

Fig. 4 Computer screen showing the soil profile photo of the selected soil series

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