

# **Spatial Variability of Soils of Bobbili Mandal, Vizianagaram District, Andhra Pradesh**

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## **ABSTRACT**

The soils of Bobbili mandal, Vizianagaram district were assessed for spatial variability by collecting surface (0-25 cm) and subsurface (25-50 cm) soil samples from 50 representative locations. Three physiographic units namely uplands, midlands and lowlands were identified based on elevation. The texture of uplands and midlands varied from sandy clay to sandy loams whereas in lowlands it varied from clay to sandy clay. Bulk density of the soils was lower at surface than subsurface with higher values in coarse textured soils. The water holding capacity followed the reverse trend with higher mean values at subsurface than surface with more values recorded in fine textures than coarse textures in all landforms. The soils were found to be strongly acidic to moderately alkaline, non-saline to critical for germination with low organic carbon. Lowlands recorded higher CEC values compared to uplands and midlands.

**Key words :** CEC, Soil physical properties, Soil reaction, Soil texture, Surface and subsurface soils.