

**CHARACTERIZATION OF SOME SOILS UNDER
DIFFERENT LAND USES ALONG A TOPOSEQUENCE IN
IBADAN, NIGERIA**

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ABSTRACT

Detailed soil, and landuse maps of a major toposequence at Institute of Agricultural Research and Training (IAR & T) Ibadan was produced at scale 1:1000 for effective landuse management by peasant farmers. The landscape is undulating with contour ranging from 524 to 542 meters and slope from 0.18 to 8.13%. The natural vegetation was replaced by intensive cultivation of cocoa, cassia, vegetable, cassava, yam, maize, pasture, with other areas covered by bush-fallow, plantain, elephant grass and thicket. The site is underlain by basement complex rocks, with coarse grained granite and gneiss as parent material. Thirteen soil series were identified in the area with soil properties (colour, texture, drainage and fertilizer) varying within short distances from upper slope to valley bottom. Soil profile mean ranges for some properties showed considerable variation % clay (6.73—19.12); CEC (4.9—10.3 cmol kg⁻¹); organic carbon (0.41—0.74%); available P (3.23 to 15.81 mg kg⁻¹) and pH (5.5—6.1), with mean CV of 35.9%, 23.5%; 25.4%; 47.28% and 3.26% respectively. Landuse management of soil over the years is commendable for its effective check on soil erosion and sustainability of fertility. Two series is used for cultivation of cocoa and cassava; Ibadan series for arable crops; Balogun, Fashola and Gbemi series for pasture and fallow; Apomu, Iregun and Oba series for arable cropping while Adio, Jago, Matako, Ikire and Oshun series are used for seasonal cropping of Haplustaff, Plinthic Paleustaff, Typic Ustorthents, Aquic Ustifluents of the USDA classification. The FAO equivalents of soil classes were provided.