

**COMPARATIVE EFFECTS OF FOREST COVER
ON SOIL CHARACTERISTICS IN DISTRICT
BUNER,KPK**



By

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Last but not least, I am indebted to my family members for their moral and financial support throughout my educational career.

ABSTRACT

The study was carried out to assess the impact of land use and land cover on physical and chemical properties of soil. For comparative analysis the whole area was divided into three zones dense forest canopy, moderate forest canopy and low forest canopy. Significant changes in soil were observed in relation to land cover and land use. Analysis of soil revealed that organic content was high in dense canopy forest due to thick density of tree that result in high porosity and low bulk density. It is also found that nutrient such as nitrates, potassium and phosphorous showed high content in dense canopy forest. With the decrease in the forest canopy, the soil's properties showed a significant variation. Due to deforestation the root network decreases that resulted in higher bulk density and lower porosity. Analysis showed that due to increase in runoff the nutrient leaching increases resulting in lowering soil's nutrient content. The rate of mineralization is high in low canopy forest followed by moderate canopy cover and least in dense canopy forest. The results revealed that land use and land cover has close relation with soil properties and any change could significantly influence these properties.

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ABBREVIATIONS

MCF	Moderate canopy cover
LCF	Low canopy cover
DCF	Dense canopy cover
LOI	Loss on ignition
SOM	Soil organic matter
SM	Soil moisture
N	Nitrates
Mg	Milligram
VIC	Variable infiltration capacity

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