

Research Article

Assessment of soil quality for different land uses in the Chure region of Central Nepal

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ABSTRACT

Soil quality is the capacity of soil to sustain biological productivity and environmental quality. Assessment of soil quality in different land use systems is essential as inappropriate land use management can degrade and deteriorate its function and stability. In this regard this study was carried out to evaluate soil quality of different land use types in Chure region of central Nepal. Soil quality index (SQI) was determined on the basis of the soil physiochemical parameters. Soil properties like soil pH, organic matter (OM), total nitrogen (TN), available potassium (AK), and available phosphorous (AP) were significantly affected by land uses types. Forest soil had the highest soil quality index (0.82) followed by bari (0.66), khet (0.64), and degraded land (0.40). Of the soil properties studied, total nitrogen and soil organic matter had the determining role in making significant impacts in the SQI among the different land uses. Hence, the results of this study can be important tool for planner, policy makers, and scientific community to frame appropriate land use management strategy.

Keywords: Soil quality index, land uses, Chure

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