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Comparative Assessment on Riparian Soil Characteristics at Three Lateral Buffer Zones in Riparian Forest of Dikhu River, Nagaland

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***Abstract*:** The present study aimed to estimate the heterogeneity of soil physicochemical properties in riparian zones at the three lateral buffer of riparian forest of the Dikhu river, Nagaland. Soil physicochemical properties of three lateral buffers i.e.,10~100 m (zone –III, the intact forest, which is undisturbed by human activities), 100~300 m (zone-II, the cultivate land) and >300 m (zone-I, the human habited land) from river edge along one side of the riparian zones were measured. The soil pH, soil moisture, organic carbon, organic matter and available nitrogen were higher in the intact forest as compared to the other two zones i.e., cultivated area and the human habited area . Seasonal variations, distance from river edge and nature of different land use system were the main responsible factors affecting the riparian soil physicochemical properties in this study.

***Keywords*:** Riparian soil, River edge, Riparian buffer, Nutrients, Dikhu river