

## **ABSTRACT**

The objective of the current study was to evaluate effect of terracing on soil chemical and biological properties in the Rwanda highlands. The study was done in March 2017. Composite soil samples were collected from the top, middle and bottom slopes of four-year-terraced and non-terraced lands, in three profile depths, in medium and high altitudes. Results showed that, levels of organic carbon (1.3, 1.04%) were significantly ( $P < 0.05$ ) higher in non-terraced than terraced land, and populations of bacteria (3.59, 2.61 CFU\*10<sup>6</sup>g<sup>-1</sup>) and fungi (2.51, 1.57 CFU\*10<sup>4</sup>g<sup>-1</sup>) were significantly higher in terraced than non-terraced land, in the medium altitude, with no significant differences observed in the high altitude. Soil pH, total N, available P, CEC, exchangeable K<sup>+</sup>, Mg<sup>2+</sup> and Ca<sup>2+</sup> levels in terraced and non-terraced lands were not significantly different in both altitudes. Thus, soil characteristics and fertility of the study areas showed slight changes after four years of terracing.

### **Keywords**

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