



Terrace Farming Practices in Southern Ghanaian Rice Provinces: Reducing Soil Erosion and Land Degradation Metrics

Saidu Kallonaiyo^{1,2}, Koroma Morinayo³

¹ Department of Advanced Studies, Njala University

² Fourah Bay College, University of Sierra Leone

³ Department of Advanced Studies, Fourah Bay College, University of Sierra Leone

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Correspondence: skallonaiyo@hotmail.com

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Author notes

Saidu Kallonaiyo is affiliated with Department of Advanced Studies, Njala University and focuses on African Studies research in Africa.

Koroma Morinayo is affiliated with Department of Advanced Studies, Fourah Bay College, University of Sierra Leone and focuses on African Studies research in Africa.

Abstract

Terrace farming is a traditional method of rice cultivation in southern Ghanaian rice provinces that aims to mitigate soil erosion and land degradation. A mixed-methods approach was employed, involving field surveys, interviews with farmers, and laboratory analysis of soil samples from various terraced fields across the study area. Terrace farming significantly improved soil structure by increasing organic matter content and reducing bulk density. Field data showed a 40% reduction in surface runoff compared to non-terraced plots, leading to enhanced water infiltration into the soil. This research highlights the potential of terrace farming as an effective strategy for sustainable rice production in Ghanaian rice provinces, particularly in mitigating soil erosion and land degradation. Farmers should be encouraged to adopt terrace farming practices through extension services and financial incentives. Government policies could also support terraced field development by providing subsidies or technical assistance. Terrace Farming, Soil Erosion, Land Degradation, Rice Production, Sierra Leone

Keywords: *Territorial Geography, Erodion, Conservation Agriculture, Geographical Information Systems, Soil Quality Indices, Watershed Management, Traditional Practices*

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