ISSN 0970-9274

JOURNAL OF HUMAN ECOLOGY

International, Interdisciplinary Journal of Man - Environment Relationship

J Hum Ecol, 30(1): 19-25 (2010)
PRINT: ISSN 0970-9274 ONLINE: 2456-6608
DOI: 10.31901/24566608.2010/30.01.03

Ecological Adaptability and Slope-Trait Considerations for Water and Soil Conservation on the Vulnerable Oku-Kom Plateau in the Western Highland of Cameroon

Zephania Nji Fogwe[1] and Michel Tchotsoua[2]

1. Department of Geography, F.L.S.S, Box 3132, University of Douala, Cameroon
E-mail: nfogwez@yahoo.co.uk
2. Departement de Géographie, F.A.L.S.H, B.P. 454 Université de Ngaoundéré
E-mail: tchotsoua@yahoo.fr

KEYWORDS Land Degradation. Geohydrological Divide. Conservation Strategy. Regreening. Agroforestry

ABSTRACT The Oku-Kom highland morphological and human stronghold of West Cameroon with rich volcanic soils has attracted farmers and breeders thereby rupturing the mountain ecological equilibrium through slope gulling and mass movements. Overwhelmed, the indigenes adapted unsuccessful regreening approaches but without slope gradient considerations. This paper identifies native and exotic plant species whose growth traits and ecological adaptability rates can be combined with varied slope gradients to permit devegetated slopes to regain natural greenness. The methodology involves field survey and observations, slope measurement on the fields correlated with the topographic map, identification and spatialization of landscape degradation phenomenon. It then matches agronomic regreening efforts and cultural specialised measures to current trends in land use and slope gradients to suggest local and exotic grass and tree species to be combined with crops that are most suitable for each slope. The results then present an optimum slope gradient-specie combination. This could be a new approach to halt landscape degradation on fragile tropical mountains especially those plagued by long dating degradation histories like the Oku-Kom tropical highland.