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LAND USE AND PHYSICAL HYDROLOGY OF THE SOUTH NJOMBE CATCHMENT, SOUTHERN HIGHLANDS OF TANZANIA

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ABSTRACT

This study examines the effect of changes in land use and vegetation cover on water yield from the Ruhudji catchment in southern Njombe. An evaluation was also made to assess the effect of afforestation on water yield. Land use vegetation covers were determined from topographic maps produced by the government of Tanzania in 1963 and 1967. More recent aerial photos were also used. Rainfall and runoff patterns were identified, and 3- and 5-year means were used to test any variation. Using correlation techniques, the relationship between rainfall and runoff was tested; the result showed very little correlation between the two variables. Some indications are provided for future research and management practices needed in the field.

Reference: Atwitye, M.J.; Land Use and Physical Hydrology of the South Njombe Catchment, Southern Highlands of Tanzania, Journal of Environmental Hydrology, Vol. 7, Paper 14, September 1999.

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