The Development of an Automated Watershed Management

G. Ford, J. Opadeyi and F. Gumbs

Abstract

An automated watershed management system (AWMS) for Trinidad and Tobago was developed and tested in the Maracas and Santa Cruz watersheds. AWMS is developed using IDRISI^{TM} GIS and image processing software. It embraces the use of the soils and land use/land cover data, since the problems in the watershed are land use related. This paper presents stages in the development of AWMS, its applications in examining the current and potential erosion in the Maracas and Santa Cruz watersheds and the assessment of the contribution of human-induced factors to erosion. Sensitivity analyses carried out on two human-induced factors showed that human settlements were more sensitive than agricultural activities and they accounted for 33% and 10% of the erosion of watershed respectively.