

EROSION MAPPING USING REVISED UNIVERSAL SOIL LOSS EQUATION MODEL AND GEOGRAPHIC INFORMATION SYSTEM: A CASE STUDY OF OKITIPUPA, NIGERIA

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ABSTRACT

There is critical need to assess soil erosion and its spatial distribution in Okitipupa town so as to achieve sustainable land use and comprehensive soil conservation. Soil erosion vulnerability mapping of Okitipupa town provides an insight into which areas should be first conserved based on the severity level of soil loss. This research integrates Geographic Information System, Remote Sensing technologies and Revised Universal Soil Loss Equation model for erosion assessment and vulnerability mapping. Vulnerability to erosion was classified into five classes: very low, low, moderate, high and very high. The very low vulnerable areas covers an area of 735.55km², low covers an area of 30.72km², moderate covers an area of 3.17km², high covers an area of 0.73km², very high covers an area of 0.14km².