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An Examination of Changes on Natural Vegetation due to Charcoal Production Using Multi Temporal Land SAT Data

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Abstract : The increased in demand of fuel wood for heating, cooking and sometimes bakery has continued to exert appreciable impact on natural vegetation. This study focus on the use of multi-temporal data from land sat TM of 1986, land sat EMT of 1999 and lands sat ETM of 2006 to investigate the changes of Natural Vegetation resulting from charcoal production activities. The three images were classified based on bare soil, built up areas, cultivated land, and natural vegetation, Rock out crop and water bodies. From the classified images Land sat TM of 1986 it shows natural vegetation of the study area to be 308,941.48 hectares equivalent to 50% of the area it then reduces to 278,061.21 which is 42.92% in 1999 it again depreciated to 199,647.81 in 2006 equivalent to 30.83% of the area. Consequently cultivated continue increasing from 259,346.80 hectares (42%) in 1986 to 312,966.27 hectares (48.3%) in 1999 and then to 341.719.92 hectares (52.78%). These show that within the span of 20 years (1986 to 2006) the natural vegetation is depreciated by 119,293.81 hectares. This implies that if the menace is not control the natural might likely be lost in another twenty years. This is because forest cleared for charcoal production is normally converted to farmland. The study therefore concluded that there is the need for alternatives source of domestic energy such as the use of biomass which can easily be accessible and affordable to people. In addition, the study recommended that there should be strong policies enforcement for the protection forest reserved.

Keywords : charcoal, classification, data, images, land use, natural vegetation
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