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LAND USE & LAND COVER CHANGE MONITORING IN THE PHILIPPINES USING SATELLITE DATA

Abstract

Land Use and Land Cover (LULC) changes intrinsically lead to various hydrological impacts especially on the outflow rate of the watersheds. Moreover, this has a significant impact on various spheres of our environment such the biosphere, hydrosphere and the atmosphere. Because of the impact brought about by this, it of utmost importance for us to understand the cause and trend of the changes in terms of land use and land cover. Identifying, delineating and mapping land cover is important for global monitoring studies, resource management, and planning activities. Identification of land cover establishes the baseline from which monitoring activities (change detection) can be performed, and provides the ground cover information for baseline thematic maps. Although remote sensing offers an opportunity to study and to monitor land use changes, few investigations have documented the progressive changes in land use in the tropics using thermal data, and virtually none have attempted physical parameters from the satellite. Due to this, it is proposed to utilize satellite data and information in identifying land cover and land use changes specifically in the Philippines. Available satellite data and other needed information in the course of the research may be done including the required components of the design of the satellite for such application. The objective of the research is to utilize satellite data and information in identifying land cover and land use changes in the Philippines. Specifically, it aims to develop a system than can acquire satellite data and information and analyze them in monitoring land cover and land changes, integrate available hardware components and provide accurate results.