

عنوان مقاله:

Land cover land use mapping and change detection analysis using geographic information system and remote sensing

محل انتشار:

فصلنامه بین المللی سرمایه انسانی در مدیریت شهری، دوره 3، شماره 3 (سال: 1397)

تعداد صفحات اصل مقاله: 12

نویسندگان:

C.E. Akumu - *Department of Agricultural and Environmental Sciences, College of Agriculture, Tennessee State University, Nashville, Tennessee, USA*

S. Dennis - *Department of Agricultural and Environmental Sciences, College of Agriculture, Tennessee State University, Nashville, Tennessee, USA*

C. Reddy - *Department of Agricultural and Environmental Sciences, College of Agriculture, Tennessee State University, Nashville, Tennessee, USA*

خلاصه مقاله:

Land cover/land use categories are relevant components in land management. Understanding how land cover/land use change over time is necessary to assess the consequences of humans and natural stressors on the earth's environment and resources. The aim of the study was to map and monitor the spatial and temporal change in land cover/land use for the periods of 1977, 1991 and 2016 and to predict change detection areas in Davidson County, Tennessee. The land cover/land use categories were classified using maximum likelihood algorithm and post classification comparison change detection analysis was performed. Classified image differencing technique was also used to predict change detection areas in Geographic Information System. The land cover/land use categories were successfully classified with a kappa value of about 78%. The land cover/land use classes changed significantly from 1977 to 2016 in Davidson County, Tennessee. Wetlands and bare land had a net decrease on average of about 97% between 1977 and 2016 whereas; developed areas and forest had a net increase on average of around 40% between 1977 and 2016. Urbanization appeared to be one of the main drivers of the change in land cover/land use. This information could be used in land management and planning by environmental managers, policy makers and other stakeholders.

کلمات کلیدی:

(Analysis, Change detection, geographic information system (GIS), Land cover/land use, Remote sensing (RS)

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/856551>



