西南交通大学学报 2010, 45(2) 185-190 DOI: 10. 3969/ j. issn. 0258-2724. ISSN: 0258-2724 CN: 51-1277/U

论文

成都市土地利用遥感动态监测及驱动力分析

成都理工大学地质灾害防治与地质环境保护国家重点实验室, 四川成都610059; 成都理工大学遥感与GIS 研究所, 四川成都610059; 成都军区空军勘察设计院, 四川成都610041

摘要:

为查明成都市近30 a 来由于城市建设高速发展导致市区土地利用/ 覆被结构的重大变化,应用成都市1978,1992,2000 和2005 年4 个时相的卫星遥感图像,通过图像处理和信息提取,对其土地利用变化进行了动态监测,建立了不同时期土地利用数据库. 利用GIS 强大的空间分析功能,提取了成都市28 a 间4 个时相土地利用的变化信息,对其近28 a 间土地利用方式的变化特征进行了定量分析,并从自然因素和人文因素等方面探讨了土地利用变化的驱动机制. 研究成果为政府有关部门科学、合理地进行城乡规划与管理决策提供了科学依据.

关键词: 土地利用/ 覆被变化(LUCC) 遥感 动态监测 驱动力分析 成都市

Remote Sensing Dynamic Monitoring and Driving Force Analysis of Land Use / Cover Changes in Chengdu

State Key Laboratory of Geo-hazard Prevention and Geo-environment Protection, Chengdu University of Technology,
Chengdu 610059, China; Institute of RS & GIS, Chengdu University of Technology, Chengdu 610059, China;
Prospect and Design Institute of Chengdu Military Command Air Force, Chengdu 610041, China

Abstract:

To explore variation in the structure of land use/ land cover in Chengdu City due to the rapid development of urban construction in the past approximate 30 years, changes of its land use were dynamically monitored with its Landsat MSS and TM satellite remote sensing images in the years 1978 1992, 2000 and 2005, and a land use database for different times was established by the processing of the remote sensing images and the extraction and interpretation of information. With the help of support of GIS (geographic information system) spatial analysis function, the information of land use changes in Chengdu in the recent 28 years was extracted. The characteristics in the structure of its land use changes in the recent 28 years were analyzed quantitatively, and the driving forces of land use changes in Chengdu were discussed from natural and human factors. The research results provides a scientific basis for the relevant departments of the government to improve their acts scientifically and rationally in urban and rural planning, management and decision-making.

Keywords: land use/ cover change (LUCC) remote sensing dynamic monitoring driving force analysis Chengdu City

收稿日期 2009-04-08 修回日期 网络版发布日期

DOI: 10. 3969/ j. issn. 0258-2724.

基金项目:

地质灾害防治与地质环境保护国家重点实验室自主研究基金资助项目(ZYKT2009鄄02); 四川省教育厅重点基础研究基金
资助项目(07ZA007)

通讯作者: 刘恩勤(1984-),女,硕士,研究方向为摄影测量与遥感,E-mail:liuchen023@ yahoo. com. cn

作者简介:

参考文献:

本刊中的类似文章

1．马荣斌;奉军.长隧道方案比选的遥感地质方法 [J]. 西南交通大学学报, 1990,25(4): 8-13

2．邱　建;贾刘强;王　勇 .基于遥感的青岛市热岛与绿地的空间相关性 [J]. 西南交通大学学报, 2008,43(4): 427-436

3．　林先成, 李永树.面向对象的成都平原高分辨率遥感影像分类研究[J]. 西南交通大学学报, 2010,45(3): 366-372

文章评论 (请注意:本站实行文责自负, 请不要发表与学术无关的内容!评论内容不代表本站观点.)

反馈人		邮箱地址	
反馈标题		验证码	4062