

遥感应用

基于GIS和RS的长清区南部山区水土流失研究

摘要:

长清区南部山区是济南市地表水来源地和地下水补给区的重要组成部分, 加强水源地水土流失的监测和治理, 有利于保证济南市的用水安全。本文利用RUSLE模型, 应用GIS和RS技术, 对长清区南部山区进行了水土流失研究。研究发现本区水土流失程度较轻, 水土流失严重区集中在山区; 不同的土地利用类型水土流失程度不同, 荒草地水土流失最为严重; 最后根据本区存在的4种治理模式提出了不同的治理建议。

关键词: RUSLE GIS RS 水土流失 济南市长清区

Soil and Water Loss Research in South Mountainous Area of Changqing District Based on GIS and RS

Abstract:

The south mountainous area of Changqing district is one of regions that supplying surface water and groundwater of Jinan city, so it is necessary to monitor and manage the region for ensuring the water safety of Jinan city. In this paper, soil and water loss of study area was researched using the revised universal soil loss equation (RUSLE) based on geographical information system (GIS) and remote sense (RS) technologies. Intensity of soil and water loss is low on the whole, and high intensity areas are found in the mountainous area. Intensity of soil and water loss is affected by land use type, and soil and water loss of grassland type have high intensity feature. Some suggestions are given according to four management patterns.

Keywords: RUSLE GIS RS soil and water loss Changqing district of Jinan city

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