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遥感应用

密云水库上游土地利用与景观格局变化特征

摘要:

基于遥感监测的多期土地利用/土地覆盖数据,详细分析了密云水库上游地区近10年土地利用类型的时空转变,并借助Fragstats软件分析了研究区景观格局的变化。研究结果表明:灌木林、有林地、中高覆盖草地始终是研究区的优势类型,维持着景观的基本功能,但土地利用与景观格局在近10年仍发生了较大的变化,2000年前有较多的林草地转变为耕地,之后,大量的耕地实现退耕,林草植被增加迅速。研究区整体景观格局破碎化有增加的趋势,但对水土保持与水源涵养有利的景观类型也在同步增加。

关键词: 土地利用 景观格局 时空变化 密云水库上游

Variation Characteristics of Land Use and Landscape Pattern in the Upper Basin of Miyun Reservoir

Abstract:

Miyun reservoir is the most important drinking water source of Beijing city, while the landscape pattern in the upper basin of Miyun reservoir and its variation may has direct influence on the water quantity and quality of this reservoir. Based on multi temporal land use/cover data, this paper analyzes in detail the temporal and spatial variation of land use type in the upper basin of Miyun reservoir in recent ten years. Moreover, by means of the FRAGSTATS software landscape pattern changes are analyzes as well. The result shows that shrub, forestland, middle and high coverage grassland always are the dominant types, which maintaining the basic landscape functions for the region. However, the land use type and landscape pattern still take place great changes in recent ten years. There are more forest and grassland transformed to farmland before the year of 2000. After that, returning farmland to forest or to grassland has been conducting in this region, so the area of forest and grass are increase rapidly. The landscape fragmentation had become showing an increasing trend in the study region, while the vegetations that are beneficial to soil and water conservation are also increasing.

Keywords: land use landscape pattern temporal and spatial variation upper basin of Miyun reservoir

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