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Using GIS to Analysis Runoff Change in Land Utilization of Foping, Nature Reserve, Shanxi Province

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ABSTRACT

Land use is an indicator of the interaction between human and the environment on the earth surface. Recently, an increasing attention has been paid to the issue of impact of land use and land cover change on environment and water quality. In this paper, we analyzed the land use and land cover change by using RS and GIS, and simulated its implications in runoff from 1991 to 2000 using SCS model in the Foping Nature Reserve, Shan 'xi Province. Our results showed that this region were main plantation, woodland and grassland. Woodland area increased significantly, while plantation and grassland area decreased, which would greatly affect runoff. Meanwhile, the results show that woodland area and land cover area are negatively correlated with the runoff.

KEYWORDS

SCS model; runoff; land use and land cover

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