

研究论文

区域植被恢复对生态安全的影响预测 ——以岷江上游干旱河谷为例

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摘要 退化生态系统恢复是保障区域生态安全的重要途径之一。在生态系统结构功能严重受损,威胁到区域生态安全时,通过引入物种进行主动的植被恢复可以有效地加速生态系统恢复进程,维护区域生态安全。但是区域尺度的植被恢复是一项规模浩大的工程,其效果和影响难以立即显现。为了评估区域植被恢复的生态风险,根据岷江上游干旱河谷区域植被恢复格局的设计结果,预测了区域植被恢复对生态安全的影响。通过对比分析现状植被盖度及生物多样性与植被恢复格局预测结果的差异,对区域植被恢复的效果进行评价,认为尽管植被恢复格局设计使部分区域生物多样性下降,但它整体提高了地表植被覆盖度,增强了抵御土壤侵蚀的能力,对保障区域生态安全具有积极的效果。

关键词 [区域尺度](#); [植被恢复](#); [生态影响预测](#); [生物多样性](#); [生态安全](#)

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Impacts prediction of regional vegetation restoration on ecological security

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Abstract Restoring degraded ecosystem is an effective way for improving ecological security in region. Applying restoration measures, such as introducing suitable native species, is perhaps necessary under some environment, especially where the natural ecosystem function was seriously damaged. However, it is hard to monitor the ecological impacts and environmental influences of regional vegetation restoration immediately, a prediction on the regional vegetation restoration would be significant alternatively. In this paper, the ecological impacts of regional vegetation restoration were predicted in an arid valley of Minjiang River, SW China. The differences of biodiversity indices and vegetation coverage between the designed vegetation restoration pattern and the field data indicated that alpha and beta diversity indices were decreased in some parts of the region after vegetation restoration, however, vegetation coverage was reasonably increased, which would enhance the capability of soil and water preservation, thus could improve the ecological security of the region.

Key words [biodiversity](#) _ [ecological security](#) _ [regional scale](#) _ [vegetation restoration](#) _ [prediction of ecological effect](#)

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