

研究报告

## 岷江上游汶川县耕地景观变化及空间驱动力

刘淼<sup>1,2</sup>, 胡远满<sup>1</sup>, 常禹<sup>1</sup>, 布仁仓<sup>1,2</sup>, 张薇<sup>1,2</sup>

<sup>1</sup>中国科学院沈阳应用生态研究所, 沈阳 110016;

<sup>2</sup>中国科学院研究生院, 北京 100039

收稿日期 2006-2-20 修回日期 2006-12-26 网络版发布日期 接受日期

**摘要** 基于遥感影像和地理信息系统技术, 应用景观指数和Kappa指数系列方法对岷江上游耕地景观变化进行研究, 并引入二项Logistic逐步回归模型, 选择海拔、坡度、坡向、到道路、河流和居民点距离为驱动因子对汶川县耕地景观变化的空间驱动力进行分析. 结果表明: 研究期间耕地景观面积一直处于增长趋势, 1974—1986年间耕地景观面积增幅最大. 1986—2000年间耕地面积增加不明显, 但是耕地景观与其它景观类型相互转换频繁, 空间位置变化剧烈, 特别是1994—2000年期间. 耕地景观面积变化的驱动力主要为政策变化. 耕地景观变化的空间驱动力在不同时间段内存在较大差异.

**关键词** [景观指数](#) [Kappa指数系列](#) [Logistic回归](#) [汶川县](#)

分类号

## Landscape change and its spatial driving force of farmlands in Wenchuan County of Minjiang River upper reach

LIU Miao<sup>1,2</sup>, HU Yuan-man<sup>1</sup>, CHANG Yu<sup>1</sup>, BU Ren-cang<sup>1,2</sup>, ZHANG Wei<sup>1,2</sup>

<sup>1</sup>Institute of Applied Ecology, Chinese Academy of Sciences, Shengyang 110016, China;

<sup>2</sup>Graduate University of Chinese Academy of Sciences, Beijing 100039, China

### Abstract

Based on remote sensing images and geographic information system, and by using landscape metrics and Kappa coefficient, this paper studied the farmland landscape change in Wenchuan County of Minjiang River upper reach. A logistic regression model was used to analyze the driving forces of this change, with elevation, gradient, aspect, and the distances to road, river and settlement as the affecting factors. The results showed that from 1974 to 2000, the farmland area in Wenchuan County kept increasing, with the greatest increment in 1974—1986. In 1986—2000, farmland area had no evident increase, but converted with other landscape types frequently and had an evident spatial position change, especially in the period from 1994 to 2000. Such a farmland change was mainly driven by policy, and the spatial driving forces differed in different periods.

**Key words** [landscape metrics](#) [Kappa coefficient](#) [Logistic regression](#) [Wenchuan County](#)

DOI:

通讯作者

### 扩展功能

#### 本文信息

▶ [Supporting info](#)

▶ [PDF\(719KB\)](#)

▶ [\[HTML全文\]\(0KB\)](#)

▶ [参考文献](#)

#### 服务与反馈

▶ [把本文推荐给朋友](#)

▶ [加入我的书架](#)

▶ [加入引用管理器](#)

▶ [复制索引](#)

▶ [Email Alert](#)

▶ [文章反馈](#)

▶ [浏览反馈信息](#)

#### 相关信息

▶ 本刊中 [包含“景观指数”的相关文章](#)

▶ 本文作者相关文章

· [刘淼](#)

·

· [胡远满](#)

·

· [常禹](#)

·

· [布仁仓](#)

·

· [张薇](#)

·