

研究报告

潭江流域森林碳储量及其动态变化

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摘要 根据森林碳储量的计算方法和森林资源清查资料, 结合实地调查校正, 估算了11年来快速城市化过程中潭江流域森林的碳储量及其动态变化, 分析了人口密度、GDP增长与森林的碳储量、碳密度的相关关系.结果表明, 潭江流域森林碳储量由1990年的 5.906×10^6 t增长到2001年的 7.852×10^6 t, 年均增长 0.18×10^6 t, 增长率为3.05%, 起到了碳汇的作用.人口密度的增加和经济的快速发展没有影响到森林碳储量和碳密度的增加, 但林业发展速度远落后于经济发展的速度.合理的林业管理模式与经济发展相互协调是流域森林生态系统在城市化过程中提供更好的服务功能并促使区域生态环境可持续发展的关键.

关键词 潭江流域 城市化 森林 碳储量

分类号

Forest biomass carbon storage and its dynamics in Tanjiang River basin

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Abstract

Based on an improved estimation method of forest carbon storage and the inventory of forest resources, this paper estimated the forest carbon storage and its dynamic changes in Tanjiang River basin, and analyzed the relationships of the carbon storage and its density with the increase of population density and GDP during the urbanization in 1990~2001. The results showed that the forest carbon storage in Tanjiang River basin increased from 5.906×10^6 t in 1990 to 7.52×10^6 t in 2001, with an annual average accumulation amount of 0.8×10^6 t or an annual average accumulation rate of 3.05%, and playing a role of carbon sink. The rapid increase of population density and GDP didn't influence the increase of forest carbon storage and density, but the development of forestry was far lower than that of economy. To have a better service function of forest ecosystem in the process of urbanization, and to promote the sustainable development of regional ecological environment, the key point is the reasonable coordination of forestry management with the development of economy.

Key words Tanjiang River basin Urbanization Forest Carbon storage

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