Effects of land use change on values of ecosystem services of Guyuan County

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As a typical area of farming-pastoral, in recent years due to the implementation of returning cultivated land to forestland or grassland, there were severe variations in land use in Guyuan County. Studies on the variation state of its ecosystem service value could supply scientific basis for protection and restoration for regional eco-environment. With referring to the table of Chinese land ecosystem services value of unit area and analyzing the data of land use change in Guyuan County, changes of the values of ecosystem services caused by land use change were estimated. The results showed that, there was some decrease in the cultivated land and grassland, but no change in the garden area and increase in area of other categories in Guyuan County from 1999 to 2006, in which the area of cultivated land decreased by 73,508.2 hm² while the area of forest increased by 73,975.5 hm², mainly resulted from the implementation of returning cultivated land to forestland. Values of Guyuan County’s ecosystem services increased by 305.509 million Yuan RMB, in which the ecosystem services of forestland and grassland have the greatest contribution.

【Key Words】: ecosystem service ecological value land use Guyuan County

【Fund】: 国家自然科学基金项目(40671006,40741123)

【CateGory Index】: X826.03;FSJ01.2

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