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Effects of Land Use Change on Ecosystem Services Value Based on RS and GIS Technology

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Based on the remote sensing images(RS) and geographic information system(GIS) techniques and the Landsat TM data, effects of land use change on ecosystem service value in Beijing from 1995 to 2000 were studied by applying the table of Chinese land ecosystem services value of unit area,the ESV computing formula and ESV coefficients.Results showed that farmland, woodland, water area and unused land areas net decreased during the research period.Among them,woodland decreased most.Lawn and residential construction land showed net increase and residential construction land enhanced most.Annual economic value of ecosystem service function in research region decreased from 2 151.54×10⁷ yuan in 1995 to 2 080.16×10⁷ yuan in 2000, with the decrease value being 71.37×10⁷ yuan.The main causation was the transformation from farmland, woodland and water area to residential construction land and lawn(urban greenbelt).Nine indices including gas regulation, climate regulation and so on all reduced in single service function of ecosystem, among which, water conservation and land formation and protection decreased most.

【Key Words】 : **Remote sensing Land use change Ecosystem services value Beijing City**

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