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The Valuation of Ecological Services from the Vegetation Ecosystems in the Qinling-Daba Mountains

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Based on the characteristics of eco-environment in the Qinling-Daba Mountains of Shaanxi Province, according to differences of the vegetation types and coverage in the Qinling-Daba Mountains, combined with the advance of new research, this paper explores the theory and methods for the valuation of the vegetation ecosystem services, establishes the data basis of vegetation ecosystem, GIS and vegetation eco-account. By determining vegetation productions and eco-adjusted mass, taking advantage of the theory and methods on ecology-economics, the paper studies the value of the vegetation ecosystem services. The results show that: (1) the value of land-vegetation's primary productivity is 199.6 billion yuan/a; (2) the value of vegetation's soil and fertilization conservation is 22.64 billion yuan/a; (3) the value of vegetation water conservation is 22.66 billion yuan/a; (4) the value of fixing CO₂ and releasing O₂ is 352.24 billion yuan/a and 374.19 billion yuan/a respectively; and (5) the total value of ecosystem services is 968.33 billion yuan/a. The rate of contribution to the temperate deciduous broad-leaved forest is the highest, accounting for 29.35% of the total value.

【Key Words】 : regional vegetation ecosystem services function value evaluation Qinling-Daba Mountains

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