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# Application of Ecosystem Services Valuation in Strategic Environmental Assessment for Land-Use Planning in Beijing

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Strategic Environmental Assessment(SEA) is now widely used in the evaluation of policies,plans and strategies.Land-use planning is very important because of its role in land-use and land-cover change(LUCC) which can lead to ecosystem and environmental change.For reasonable and scientific land-use planning and development of an environmentally-friendly society,SEA should be carried out before land-use planning.In this article,the value of ecosystem services was used as an assessment index for conducting a strategic environmental assessment of Beijing land-use planning.The Chinese ecosystem services value per unit area for different ecosystem types,as determined by Xie Gaodi,was used to calculate the total value of ecosystem services in Beijing in 1996,2006 and 2010.The results of the three years are 187.96×108 yuan,193.30×108 yuan and 211.87×108 yuan,so the value of ecosystem services in Beijing increased by 23.90×108 yuan from 1996 to 2010.Generally speaking,the land-use plan can be regarded as reasonable because of the increase in value of ecosystem services.Then,we took into account the population explosion of Beijing in recent years.The per-capita ecosystem services value was calculated and the results show that although the total ecosystem services value increased,the value per-capita decreased,from 1492.46 yuan in 1996 to 1222.64 yuan in 2006 and 211.87 yuan in 2010.When compared with GDP,which increased sharply,the growth rate of ecosystem services value was much slower,and the development of economy and ecological environment were uncoordinated.Thus,land-use planning still has some problems and supplementary modifications are needed.More work should be done on environmental protection and resource utilization.The land-use data for 2006 indicated that more attention should be paid to the actualization of land-use planning.The accuracy of ecosystem services valuation plays an important role in the SEA for land-use planning,and to make a reasonable SEA,more work should be done on the accuracy of valuation,such as thinking about ecosystem heterogeneity and reevaluation of construction sites and unused land.This should be the direction and focus of future research.

【Key Words】 : **Ecosystem services valuation Land-use planning SEA Beijing**

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