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Principles of the Eco-Environmental Impact Assessment for Development Construction Projects:A Theory of Eco-Environmental Functions Conservation

Mao Wen'yong (Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing 100085)

All types of ecosystem on the Earth constitute the environment on which the sustainable existence and development of human beings rely, that is, the eco-environment. For a sustainable development strategy, more attention should be paid to evaluating the ecological functions of the environment in an environmental impact assessment for a development construction project. As presented in this paper, such an eco-environmental impact assessment should be based on preserving the environmental functions of ecosystems to assess the impacts on the ecological functions of the environment and to identify the measures for compensating the damaged functions. More than 12 indicators of ecological functions of the environment were identified along with the methods for their valuation suggested. It was also indicated at the same time that, in order to assess the impacts on the ecological functions of the environment, the following three concepts must be setup: 1 The concept of the value of ecological resources that is different from the concept of traditional economics, land use, deforestation and water resources development were exemplified to describe the difference between both concepts and the distinguishing between the benefits from two different concepts; 2 The concept of integrating quantity with quality. Land and soil, water quantity and water quality, vegetation cover and diversity, etc., were exemplified to describe the correlation of quantity to quality; 3 The concept of the holistic harmonization of ecosystems and the priority assessment of major influencing factors.

【Key Words】 : **eco-environmental impact assessment development construction projects environmental functions.**

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