

论文 后发地区生态承载力及其评价方法研究——以海峡西岸经济区为例

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摘要:

在区域生态承载力及其与资源、环境承载力相互关系的基础上, 针对后发地区敏感的生态环境、强烈的发展愿景和以产业区域转移为主的后发优势战略, 阐明了后发地区生态承载力的判定标准和衡量对象, 构建了后发地区生态承载力概念模型; 与区域生态系统健康评价相结合, 运用多目标规划, 建立了后发地区生态承载力评价模型, 对海峡西岸经济区生态承载力进行了综合评价。目前海西区生态系统所承受的人类干扰总体上较轻, 重点产业发展尚未对区域生态系统的结构、功能和健康等级构成威胁。若海西区土地产出率升至2007年上海市土地产出率的75%, 海西区及其多数分区生态系统可以持续支撑其重点产业中长期发展。海西区生态系统的承载能力和承载状况具有显著的区域差异, 有利于该地区经济社会的健康发展、生态服务功能的持续发挥和区域生态安全的有效保障。

关键词: 区域生态 生态承载力 区域生态系统健康 多目标规划 后发地区 海峡西岸经济区

Ecological Carrying Capacity and Its Assessment Method in Late-Developing Regions—A Case Study in the Economic Zone on the West Side of the Straits

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Abstract:

Based on ecological carrying capacity and the relationship between ecological carrying capacity and other carrying capacity, the judgment standard and measurement object of ecological carrying capacity in late-developing regions were defined, the conceptual model of ecological carrying capacity in late-developing regions was also built, according to their sensitive eco-environment, relative slowness of socio-economic development, strong aspiration of development and late-developing strategy. The assessment method of ecological carrying capacity in late-developing regions was also established by multi-objective programming, combining with regional ecosystem health assessment. A case study was carried out in the economic zone on the west side of the Straits (called "Haixi Zone" for short), aiming at the sustainable development of key industry. Results showed that the human disturbance index of Haixi Zone was 2.68% in 2007, which is lower than the average level (3.13%) of China in 2006 and human disturbance threshold (5.96%) of Haixi Zone; the human disturbance index of all sub-zones of Haixi Zone was lower than its human disturbance threshold. Current human disturbance carried by ecosystem in Haixi Zone was relative light; human activities and key industrial development haven't threatened regional ecosystem structure, service and its health status. According to the production rate of construction land in Haixi Zone, Haixi Zone and all sub-zones could sustain the present development of key industry, but Haixi Zone and most sub-zones wouldn't sustain the medium and long term development of their key industry. As the production rate of construction land in Haixi Zone rises to 75% of the production rate of construction land in Shanghai city in 2007, Haixi Zone and most sub-zones would sustain the medium and long term development of their key industry. Therefore, the production rate of construction land is the key factor that influences ecological carrying capacity, the sustain development of key industry and ecological security of Haixi Zone. Meanwhile, there were spatial differences in carrying capacity and carrying status of ecosystem in Haixi Zone, which is helpful to sound development of social-economic, sustainable usage of ecosystem service and effective maintenance of ecological security.

Keywords: regional ecology ecological carrying capacity regional ecosystem health multi-objective programming late-developing region the economic zone on the west side of the Straits

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