

The Spatial Planning of Coastal Land Resources in Taiwan

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Abstract

Facing climate anomalies caused by global environment change, the development for highly sensitive coastal regions should have proper spatial planning through integrated coastal management tools in order to prevent destruction of geographical environment resources. Hsinchu County coast is rich in natural resources, and retains the highest proportion of natural coastal areas also western Taiwan. In response to increasing recreational activities and industrial development, how to seek the optimal balance for coastal land resource utilization and space allocation model between the natural ecological environment and socio-economic benefits will be important subjects for the decision-making regarding Hsinchu County coast planning. The study will combine Geographic Information System (GIS), ecological planning method and biodiversity analysis according to coastal environment properties. Simulating the distribution of environmental resources by quantification to analyze the load of coastal land resources and integrate the spatial allocation of in Hsinchu County will minimize a spatial conflict between the preservation of coastal ecology and land development to the minimum. Eventually, the results obtained from the spatial analysis provide the development of coastal land the preservation of environmental resources for the reference in Hsinchu County in the future, and can be used for a study foundation of environmental management technologies related to ecology and space.

Keyword : coast; ecological environment; spatial analysis; GIS