

Evaluation of Ecological Resilience in Mountain-plain Transition Zones: A Case Study of Dujiangyan City, Chengdu

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Abstract : In the context of land and space development and resource environmental protection. Due to its special geographical location, mountain-plain transition zones are limited by many factors such as topography, mountain forest protection, etc., and their ecology is also more sensitive, with the characteristics of disaster susceptibility and resource gradient. Taking Dujiangyan City, Chengdu as an example, this paper establishes resilience evaluation indicators on the basis of ecological suitability evaluation through the analysis of current situation data and relevant policies: water conservation evaluation, soil and water conservation evaluation, biodiversity evaluation, soil erosion sensitivity evaluation, etc. Based on GIS spatial analysis, the ecological suitability and resilience evaluation results of Dujiangyan city were obtained by disjunction operation. The ecological resilience level of Dujiangyan city was divided into three categories: high, medium and low, with an area ratio of 50.81%, 16.4% and 32.79%, respectively. This paper can provide ideas for solving the contradiction between man and land in the mountain-plain transition zones, and also provide a certain basis for the construction of regional ecological protection and the delineation of three zones and three lines.

Keywords : urban and rural planning, ecological resilience, dujiangyan city, mountain-plain transition zones

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