

Urban Sustainable Development Based on Habitat Quality Evolution: A Case Study in Chongqing, China

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Abstract : Over the last decade or so, China's urbanization has shown a rapid development trend. At the same time, it has also had a great negative impact on the habitat quality. Therefore, it is of great significance to study the impact of land use change on the level of habitat quality in mountain cities for sustainable urban development. This paper analyzed the spatial and temporal land use changes in Chongqing from 2010 to 2020 using ArcGIS 10.6, as well as the evolutionary trend of habitat quality during this period based on the InVEST 3.13.0, to obtain the impact of land use changes on habitat quality. The results showed that the habitat quality in the western part of Chongqing decreased significantly between 2010 and 2020, while the northeastern and southeastern parts remained stable. The main reason for this is the continuous expansion of urban construction land in the western area, which leads to serious habitat fragmentation and the continuous decline of habitat quality. While, in the northeast and southeast areas, due to the greater emphasis on ecological priority and urban-rural coordination in the development process, land use change is characterized by a benign transfer, which maintains the urbanization process while maintaining the coordinated development of habitat quality. This study can provide theoretical support for the sustainable development of mountain cities.

Keywords : mountain cities, ecological environment, habitat quality, sustainable development

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