

Resilience Assessment of Mountain Cities from the Perspective of Disaster Prevention: Taking Chongqing as an Example

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Abstract : President Xi Jinping has clearly stated the need to more effectively advance the process of urbanization centered on people, striving to shape cities into spaces that are healthier, safer, and more livable. However, during the development and construction of mountainous cities, numerous uncertain disruptive factors have emerged one after another, posing severe challenges to the city's overall development. Therefore, building resilient cities and creating high-quality urban ecosystems and safety systems have become the core and crux of achieving sustainable urban development. This paper takes the central urban area of Chongqing as the research object and establishes an urban resilience assessment indicator system from four dimensions: society, economy, ecology, and infrastructure. It employs the entropy weight method and TOPSIS model to assess the urban resilience level of the central urban area of Chongqing from 2019 to 2022. The results indicate that the resilience level of the central urban area of Chongqing is unevenly distributed, showing a spatial pattern of "high in the middle and low around"; it also demonstrates differentiation across different dimensions; due to the impact of the COVID-19 pandemic, the overall resilience level of the central urban area of Chongqing has declined significantly, with low recovery capacity and slow improvement in urban resilience. Finally, based on the four selected dimensions, this paper proposes optimization strategies for urban resilience in mountainous cities, providing a basis for Chongqing to build a safe and livable new city.

Keywords : mountainous urban areas, central urban area of Chongqing, entropy weight method, TOPSIS model, ArcGIS

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