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# Making a Resilient Livable City: Explorations of Smart Management Mechanism for Aging Society's Disaster Prevention

**Authors :** Wei-Kuang Liu, Ya-Hsu Chiang

**Abstract :** In the coming of an aging society, the issues of living quality, health care, and social security for the elderly have been gradually taken seriously. In order to maintain favorable living condition, urban societies are also facing the challenge of disasters caused by extreme climate change. However, in the practice of disaster prevention, elderly people are always weak due to their physiological conditions. That is to say, in the planning of resilient urbanism, the aging society is relatively in need of more care. Thus, this research aims to map areas where have high-density elderly population and fragile environmental condition in Taiwan, and to understand the actual situation of disaster prevention management in these areas, so as to provide suggestions for the development of intellectual resilient urban management. The research takes the cities of Taoyuan and Taichung as examples for explorations. According to GIS mapping of areas with high aging index, high-density population and high flooding potential, the communities of Sihai and Fuyuan in Taoyuan and the communities of Taichang and Nanshih in Taichung are highlighted. In these communities, it can be found that there are more elderly population and less labor population with high-density living condition. In addition, they are located in the areas where they have experienced severe flooding in the recent past. Based on a series of interviews with community organizations, there is only one community out of the four using flood information mobile app and Line messages for the management of disaster prevention, and the others still rely on the traditional approaches that manage the works of disaster prevention by their community security patrol teams and community volunteers. The interview outcome shows that most elderly people are not interested in learning the use of intellectual devices. Therefore, this research suggests to keep doing the GIS mapping of areas with high aging index, high-density population and high flooding potential for grasping the high-risk communities and to help develop smart monitor and forecast systems for disaster prevention practice in these areas. Based on case-study explorations, the research also advises that it is important to develop easy-to-use bottom-up and two-way immediate communication mechanism for the management of aging society's disaster prevention.

**Keywords :** aging society, disaster prevention, GIS, resilient, Taiwan
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