

Spatial Analysis of exposed population and deaths under a large-scale flooding

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With the increasing trend of global warming, more and more people are killed by flood triggered by the concentrated rainfall. Moreover, the frequency of flood will further increase as the result of the rising temperature and sea levels, which may take great casualties. For the sake of minimizing the losses, it is necessary to quickly grasp the temporal and spatial distribution of exposed population and the casualties, and make and implement proper rescue countermeasures. Therefore, flood-related studies from this point of view is an urgent task. In this study, the Tokyo Katsushika Ward was selected as study area. Based on GIS and LIFE Sim model, the author analyzed the exposed population of walking difficulty, living difficulty, isolated, and death based on the risk degree of immersion depth and duration under the assumption of two-hundred-year heavy rain.

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