GIS analysis for seismic risk hazard evaluation using landform classification data and boring data

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Land condition maps are recently published vector data format by Geographical Survey Institute, and then it is easy to analyses combing variable national land data using GIS. In this study, the author analysis the relationship between landform classification and disaster damages to combine the vector data of land condition maps and the information of earthquake damage distribution using GIS, especially case of the 1944 To-Nankai Earthquake in Tokai District. On terrace or fluvial fan, housing damages are relatively small. And on valley plain or flood plain, coastal plain or delta and natural levee, housing damages are relatively large. As the results of GIS analysis using boring data, there are heavy building damages on the soft mud deposited area. These results show that it is important to consider the landform evolution.