

Hazard map information combined with time-serial topographic maps, landform classification and disaster history

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A hazard map in micro scale is needed for the mitigation of disasters. In order to produce it, an effective use of [land condition map] and [land classification map] are required. These maps clarify natural conditions of the land by landform classification in large scales using aerial photo interpretation method. To grasp landform evolution, it is useful for understanding the disaster characteristics of studied area.

These land condition maps are recently published vector data format by Geographical Survey Institute, then it is easy to analyses combining variable national land data using GIS. Because of the development of time-serial digital geographic information such as olden topographic maps and olden aerial photos, it is possible to analysis the history of artificial landform change by large scale development using GIS. As it is easy to recognize micro scale topography using high resolution DEM by airborne laser survey, it is possible to estimate the danger zone of flood disaster or mass movement disaster of slope.

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 disaster damage distribution using GIS. Then, the results of over ray analysis are introduced, to combine with topographic analysis using several size DEM, landform classification and hazard map information. Finally, the useful combination of disaster information and other geo-spatial information is discussed, for the understanding of disaster characteristics for resident using web mapping system by local government.