Abstract of Doctoral Thesis

A comparative area study of three large cities that suffered from disastrous floods in modern Japan: The cases of Kyoto, Osaka and Kobe in the 1930s

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This thesis aims to discuss the applicability of approaches of comparative regional geography to historical disaster studies. Three case studies analyses the physical and social factors caused micro-scale regional differences, for example old built-up area, newly urbanised area or non urbanised area, in the extent of damage. The cities under the study are Kyoto, suffered substantial damages by the heavy rains in 1935, called the Great Kyoto Flood Disaster, Osaka that experienced the storm surge and winds of the Muroto Typhoon in 1934, and Kobe that was seriously damaged by the heavy rains in 1938, called the Great Hanshin Flood Disaster. The data used in this study are taken from the reports edited by Kyoto City, Osaka City and Kobe City on these disasters at these ages. Geographic information systems (GIS) are used as a tool to increase accuracy of analysis.

A series of comparative analysis on landform and urbanization history of the three cities indicate that: (1) urbanization of coastal or steep slope areas which were vulnerable to suffer damage by floods caused the large flood damages in the cities by 1934 Muroto typhoon and heavy rains in 1935 and 1938. (2) The damaged areas by floods in the cities displaced “hotspot” of high risk areas by urbanization since the 1930s in Japan.

In conclusion, the three approaches associated with comparative regional geography studies, micro-scale analyses, using GIS and comparison of disaster areas, effectively promote the development of the historical disaster studies.