

新竹科學工業園區防災避難據點區位選擇評估之研究

閻克勤, 李佩蓉

建築與都市計畫學系

建築與規劃學院

dama@chu.edu.tw

摘要

In recent years, the disasters are often occurred in many places because of global climate change and excess development of urban environment due to global warming. So how to reduce the disaster risk will be a subject that the whole people should care about with it. Taiwan belongs to the sea island type climate and lies in the earthquake belt of the Pacific Ocean. So the emergence probability of natural disaster (earthquake, typhoon and flood etc.) is very high. It may cause great threat to the natural environment and social economy of Taiwan. Especially there are chemical substances in the factories of Science Park. Besides the natural disasters, there are also industrial disasters (toxic disaster, fire and explosion etc.). Therefore the selection of disasters prevention stronghold in Science Park will be different from common urban area. So this study analyzes the Science Park with domestic economic development importance. The influence factors on the selection of disasters prevention stronghold are regressed first for natural and industrial disasters through relevant literature survey. The basic information is established according to the investigation result of present disasters prevention resource. The simulation analyses are carried for various types of disaster. The analysis hierarchy process

(AHP) and expert questionnaire are used to get the relative weight among factors, in order to establish the selection and evaluation system for calamities precaution and disasters prevention stronghold in Hsinchu Science Park. Finally, the optimum disasters prevention stronghold in Hsinchu Science Park is obtained through the integration and analysis of Geographic Information Systems (GIS), diagram mapping method, and the weight value of factor. It is hoped that this study result can be used as the reference for the setup and planning of calamities precaution and disasters prevention stronghold in Hsinchu Science Park.

關鍵字：Hsinchu Science Park, disasters prevention stronghold, Geographic Information