

The Implication of Disaster Risk Identification to Cultural Heritage-The Scenarios of Flood Risk in Taiwan

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Abstract : Disasters happen frequently due to the global climate changes today. The cultural heritage conservation should be considered from the perspectives of surrounding environments and large-scale disasters. Most current thoughts about the disaster prevention of cultural heritages in Taiwan are single-point thoughts emphasizing firefighting, decay prevention, and construction reinforcement and ignoring the whole concept of the environment. The traditional conservation cannot defend against more and more tremendous and frequent natural disasters caused by climate changes. More and more cultural heritages are confronting the high risk of disasters. This study adopts the perspective of risk identification and takes flood as the main disaster category. It analyzes the amount and categories of cultural heritages that might suffer from disasters with the geographic information system integrating the latest flooding potential data from National Fire Agency and Water Resources Agency and the basic data of cultural heritages. It examines the actual risk of cultural heritages confronting floods and serves as the accordance for future considerations of risk measures and preparation for reducing disasters. The result of the study finds the positive relationship between the disaster affected situation of national cultural heritages and the rainfall intensity. The order of impacted level by floods is historical buildings, historical sites indicated by municipalities and counties, and national historical sites and relics. However, traditional settlements and cultural landscapes are not impacted. It might be related to the taboo space in the traditional culture of site selection (concepts of disaster avoidance). As for the regional distribution on the other hand, cultural heritages in central and northern Taiwan suffer from more shocking floods, while the heritages in northern and eastern Taiwan suffer from more serious flooding depth.

Keywords : cultural heritage, flood, preventive conservation, risk management

Conference Title : ICFRIR 2015 : International Conference on Flood Recovery, Innovation and Response

Conference Location : Athens, Greece

Conference Dates : July 20-21, 2015