DATA EXTRACTING TO KNOWLEDGE MANAGEMENT FOR FLOOD PREVENTION IN NAKHONRATCHASIMA PROVINCE, NORTHEASTERN THAILAND

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Flood event year 2010 were extremely occurred in Nakhonratchasima province where locates in northeastern Thailand and then had hardly effected to living of communities such as transportations and communications. In this paper, the objective is to initially discover or extract knowledge of flood causes from documents or fact sheets during 2001–2011 (10 years) in a human-understandable structure from the concerned agencies based on data mining. Raw data of the concerned agencies are water data from Royal Irrigation Department, forest data from Royal Forest Department, road data from Department Of Highways, urban data from Department of Public Works and Town and Country Planning, climate data from the Thai Meteorological Department and population data from National Statistical Office. Then, outputs are compared during them to analyse the interactive or the linkage relationships of possible causes for flood happening in pattern of graph and diagram. As a result, six obtained data from concerned agencies in 10 years have the increasing trend except forest data (the decreasing trend) and climate data (the unstable trend). Additionally, diagram analysis is found that flood cause in Nakhonratchasima area can divided into two events: normal and non-normal. Firstly, flood event can be managed (under estimation) and affected to loss in lowest level and no have loss. Secondly, flood event cannot be managed (over estimation) that affected to devastation in communities. Discovery of such flood knowledge will be used for flood prevention and management in Nakhonratchasima province of Thailand.