

## Flood Disaster Risk Analysis at Ratnapura in Sri Lanka

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This paper describes disaster risk at a flood-prone area in southwest Sri Lanka where a severe flood disaster took place in May 2017. First, the author conducted frequency analysis at Ratunapura by using a 125-year annual maximum rainfall series to evaluate the probability of the 2017 event. Second, land use change was also detected by Landsat-8 images before and after the flood. Visiting Ratunapura a couple of times, the author interviewed people and the local government to understand the situation of the flood disaster and how they coped with the flood by utilizing a framework based on disaster ethnography. Results obtained from the interview survey showed that the residents, who acted on their own experience and knowledge, could not respond to disasters when enormous floods occurred, and the flood disaster brought them bad influences in many ways. In addition, external organizations including governments, UN agencies and Non Profits Organizations for disaster relief could not provide adequate supports to reflect the needs of residents worth covering vulnerabilities. Moreover, this survey found that the government's assessment of the house and livelihood damage was delayed. Also, distribution of allowance and supplementary from the government was delayed. The research results in this paper would be useful for flood disaster risk reduction and for understanding recovery processes in Sri Lanka.

Keywords: Flood Disaster, Frequent Analysis, Land Use Change, Recovery and Rehabilitation, Sri Lanka