



Impact of flood hazard and analyzing the spatial distribution using Geo Spatial Technology in Kattankudy Divisional Secretariat Division

M.N.F. Farosa^{1*}, M.N.F. Shafiya²

^{1,2}Faculty of Arts and Culture, South Eastern University of Sri Lanka.

*Corresponding: mohammedfaros2020@gmail.com

Abstract

One of the most frequent natural disasters worldwide is flooding. A landscape that is unnaturally filled with water and has a high water level without draining from the ground level is referred to as being in flood condition. This indicates that the flood disaster is thought to be the most regular and prevalent disaster in the nations of the world. This indicates that Sri Lanka is a nation that experiences flood disasters frequently. Cyclones and westerly's also contribute to floods, which are a typical occurrence in Sri Lanka during the monsoon season. In addition to this, the effects of human activity are also noticeable. Based on it, it is determined that the study is concentrated on the Kattankudy Divisional Secretariat, which is situated in Sri Lanka's Eastern Province. Due to the increased annual rainfall, this study region was shown to be a flood disaster area. There are many effects on the studied area during this catastrophe. The occurrence of flood disasters in this area is influenced by both natural and human factors. The results are also more obvious as a result. Based on that, the primary goal of this study is to assess the damages brought on by floods in the Kattankudy region between 2010 and 2021. Data were gathered in order to accomplish the study's goal, and both qualitative and quantitative data were logically examined. Using human behavior as a source of numerical data, these data were then mathematically studied. On that basis, the characteristic data will be given in a descriptive manner, and the numerical data will be presented and explained using tables and graphs that employ statistical methods. The study's purpose required the collection of qualitative data. Attributive data were studied logically, while numerical data were mathematically analyzed utilizing human behavior as a source of numerical data. On the basis of that, descriptive data will be presented, and numerical data will be presented and explained using statistically-based tables and graphs. For analysis, those data were mostly collected from primary and secondary sources. Based on this, data from the Kattankudy Divisional Secretariat was acquired for the years 2010–2021. Additionally, interviews with officials were used to gather primary data, after which analysis was done. The social, economic, and environmental effects of flood disasters were also noted in this study. This study looked at the harm that flooding caused to people and property in 18 GSDs under the Kattankudy Divisional Secretariat. The study's final recommendations also go through various steps that might be taken to lessen the effects of floods.

Keywords: Landscape, Monsoon season, Cyclone, Environmental Impacts