MULTI HAZARD EARLY WARNING SYSTEM FOR EFFECTIVE DISSEMINATION OF EMERGENCY DATA (MOBILE APPLICATION TO DISSEMINATE DATA IN HAZARDOUS SITUATIONS)

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Abstract

Sustainable Development is the most important requirement in any country today. In Sri Lanka, many risks occur due to many reasons. These risks are increased due to poor dissemination of data. Small issues will end up with a huge catastrophe due to poor monitoring, ignorance, and not taking proper measures to mitigate. The study's research framework is based on a quantitative research approach based on interviews and focuses on group discussions. Interviews, observation, text, and document analysis are some of the data collection methods that were used. Snowball sampling and Simple random sampling are the sampling methods carried out through the research. Data is analyzed in two stages. The first stage is before developing the Mobile App whereas the next stage is after developing the Mobile App. The people in the Minuwangoda area suffered a lot from various risky situations, especially from Covid 19 (Xinhua, 2020). It is an emergency response and data dissemination tool. There is a lacuna in the information-sharing mechanism that needs to be improved with the quality and effectiveness of early warnings and data dissemination. (Management, 2014) This research especially focused on the data collected from the public. This is a solution for the challenge to collect real-time emergency data dissemination. There is a shortage of data collection from the public. From this tool, the public can inform the relevant authorities such as NBRO, DMC, GN through this mobile application. This public information can be used as the base to find out the hazardous situation before it becomes a disaster. Eg- a crack in the ground, to inform wild fire, urban fire, cracks in buildings, inform animal behaviour, mountain collapses..etc… This tool is also useful to disseminate data among the government stockholders. Hazard can be related not only to a landslide, flash flood, or drought it can be Human-Elephant conflict, forest fire, environment pollution, marine pollution, crop damage. This can be useful for epidemics as well, for example, to collect emergency data from the public on Covid 19. Further developments can be done to collect data on drugs, human trafficking, details on farmers on how many paddy fields are harvested by the farmers, and how much of contribution each farmer can do by producing up to the current demand of the country. This tool can be implemented for health care, fire brigades, agriculture, education, fisheries, infrastructure, education, transportation, and security. This can be a platform for all issues since there is no proper inter connected system in Sri Lanka.