Importance of ICT in building landslide resilient community: Contemporary status and future needs

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Abstract

Information and communication technology have now become an essential tool to build the community resilience towards landslide hazard. To face the landslide hazard with minimal impacts, community people should have better access to information and communication system. However, lack of accessibility of information and the inefficient communication system was found as important challenges in making the community resilience. Accordingly, the aim of this study was to assess the accessibility of communication facilities and information during the pre and post disaster phases of landslide hazard. This study was conducted in 8 *Grama Niladari* Divisions which are considered as a landslide prone areas of the *Rattota* Divisional Secretariat Division of *Matale* District. Questionnaire survey and interviews were accommodated to collect the necessary data and information. A sample of 270 households was selected based on the stratified random sampling method for the questionnaire survey. Since the study area consists of both estate and rural community, diverse patterns were identified. The study reveals that poor communication facilities in the study area have caused a number of problems to community people as well as officials during the emergency situation. Landslide relevant information and early warning messages were not reaching the entire community due to the inefficient communication system. In terms of mode of communication, telephone and direct instructions were found important methods with effective progress. Subsequently, both television and radio play quite an important role. It was found that only 2% of the respondents have the accessibility of internet facility. Though social media can play a crucial role in spreading out the information, it plays an unimportant in the study area as usage of social media was found to be low in the order. Apart from this *"Word of mouth"* was identified as a well-known method and it worked well in the past during an emergency situation to share the information with adjoining community people. It was found that, in terms of contact

with the relevant officials, 53% of households possess the contact number of *Grama Niladari* for reporting purposes while only about 2% had the contact number of National Building Research Organization which is considered as most relevant institution in the landslide risk reduction process. Even though, institutional interventions seem to be quite good with a gradual increase of involvements, availability of information was found low in the order and still exists as a major challenge in making the better accessibility of information. Similarly, community people had a lack of knowledge of existing network associated with the landslide risk management in the study area. Therefore, this study suggests that better communication system and access to the right information should be ensured to the entire community to achieve better progress in the landslide risk reduction and making the landslide resilient community.

Keywords: Disaster, landslide, risk, communication, accessibility, information, resilience