

Colombian Emergency Response Platform (PCRE): Design and Testing of a Sdi-Based System to Facilitate Disaster Management in Colombia

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SUMMARY

Colombia has high frequency of disasters as a result of geographical features including earthquakes, volcanic activity, floods, droughts, landslides and bushfires. The occurrence of natural disasters has increased exponentially in recent years, mostly generating the propagation of the unwanted effects on the population. Sharing multi-crowd spatial information is a useful tool for disaster risk management. However, difficulties for the collection, access, dissemination and use of the data exists. Despite the existence of regulations for providing information concerning with risk management in Colombia, they are not carried out generating inefficient allocation of resources.

In order to improve data sharing and decision making during all risk management phases, this paper describes the conceptual design of the Colombian Platform for Emergency Response (hereinafter referred to as "PCRE"), developed based on existing approaches of Spatial Data Information (SDI) and Decision Support Systems (DSS). The initial design was tested by a pilot development for the response phase, tested in a local situation in Bogota with the participation of over 40 key stakeholders, including the national government and private sector. As a general sense it was found that the key design aspect of PCRE is to improve communication effectively and efficiently between institutions, serve as a mechanism for sharing multidisciplinary information, connect systems, and incorporate the society. Future researches are in the areas of preparedness and mitigation. The initial focus of the PCRE is the response stage; some activities are related to monitoring and emergency management, data in real time during the event, short-term updates information regarding listings and location of equipment entities providing answers care services.

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