Prioritization of information using decision support systems for seismic risk in Bucharest city

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Nowadays, because of the ever increasing volume of information, policymakers are faced with decision making problems. Achieving an objective and suitable decision making may become a challenge. In such situations decision support systems (DSS) have been developed. DSS can assist in the decision making process, offering support on how a decision should be made, rather than what decision should be made (Simon, 1979). This in turn potentially involves a huge number of stakeholders and criteria. Regarding seismic risk, Bucharest City is highly vulnerable (Mandrescu et al., 2007). The aim of this study is to implement a spatial decision support system in order to secure a suitable shelter in case of an earthquake occurrence in the historical centre of Bucharest City. In case of a seismic risk, a shelter is essential for sheltering people who lost their homes or whose homes are in danger of collapsing while people at risk receive first aid in the post-disaster phase. For the present study, the SMCE Module for ILWIS 3.4 was used. The methodology included structuring the problem by creating a decision tree, standardizing and weighting of the criteria. The results showed that the most suitable buildings are Tania Hotel, Hanul lui Manuc, The National Bank of Romania, The Romanian Commercial Bank and The National History Museum.