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## **SEISMIC RISK COMMUNICATION AMONG HAZARD EXPERTS AND LOCAL-LEVEL GOVERNMENTS USING SAFETY ELEMENTS**

The objective of this study is to understand the use of geo-scientific research by local-level governments for mitigating seismic risk. The study-area of interest is Orange County, California, which includes 2000 sq km, 67 km of Pacific Ocean coastline, mountainous areas, 34 incorporated cities, multiple active earthquake hazards, and a demographically diverse population over 2.5 million. Cities represent a key component of risk communication regarding geo-scientific research because a substantial amount of effective policy implementation, compliance, and enforcement occurs at their level of government. The Safety Element of the General Plan is a state-legislated local-document usually coupled with a geo-technical background report that is among the techniques available to local-level governments to mitigate earthquake risk. These documents are designated to improve earthquake safety by first describing the earthquake hazard/risk and then formulating programs, goals, and policies that mitigate the described hazard/risk. A greater benefit from Safety Elements may be realized if we better understood their strengths and weaknesses, which in turn become leverage points in our natural disaster planning process. This paper presents a methodology for assessing risk communication, in part using a dataset of Safety Elements, by conducting a trilateral assessment of earthquake hazard, risk, and mitigation.