



## **Assessing community vulnerabilities to natural hazards on the Island of Hawaii**

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The island of Hawaii is susceptible to numerous natural hazards such as tsunamis, flooding, lava flow, earthquakes, hurricanes, landslides, wildfires and storm surge. The impact of a natural disaster on the island's communities has the potential to endanger peoples' lives and threaten critical infrastructure, homes, businesses and economic drivers such as tourism. A Geographic Information System (GIS) has the ability to assess community vulnerabilities by examining the spatial relationships between hazard zones, socioeconomic infrastructure and demographic data. By drawing together existing datasets, GIS was used to examine a number of community vulnerabilities. Key areas of interest were government services, utilities, property assets, industry and transportation. GIS was also used to investigate population dynamics in hazard zones. Identification of community vulnerabilities from GIS analysis can support mitigation measures and assist planning and response measures to natural hazards.