

Saving Lives With Geological Maps

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Geoscientists use geological maps in many ways to improve our lives. They are an important tool in understanding the earth's structure, locating natural resources, and predicting natural hazards. One very important use of these maps is the location of faults. In the United States, thirty-nine out of the fifty states have a high risk of earthquakes. The US shaking hazard map shows the areas where major earthquake hazards are probable in the United States and allows us to be better prepared for the next big one, which can save lives.

Seismologists use the geological shaking hazard map in addition to other information to predict the most probable timing, location, and magnitude of the next earthquake. The goal of seismology is to create a system that will provide warnings for individual earthquakes. This in return will save many lives.

Another way the geological survey map can be used to save lives is by engineers in the construction of buildings. Architects need to design buildings that can withstand the force of an earthquake in an at risk area. The building has to almost sway with the ground. Engineers and architects can use the maps to determine if it's necessary to build an earthquake resistant structure.

In addition to seismologists and engineers, the US Government also utilizes the shaking hazard map. The Federal Emergency Management Agency (FEMA) gives money to educate high risk communities in earthquake safety and preparedness. The goal of FEMA is to increase the awareness of earthquake dangers to people living in high risk areas.

By using the geological maps, we can better understand the earth we live on and be better prepared for future events and natural disasters. This is why the maps created by earth scientists are so important to local communities, regions, and the entire United States.