

Risk is much more than a game

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Wildfires and flooding affect many more people in the USA than earthquakes and landslides and yet the dread, the perceived risk, of the latter two is much greater than for those hazards that are more frequent and cause greater loss of life. Research published in the *International Journal of Risk Assessment and Management*, suggests that a new paradigm for risk assessment is needed so that mitigation plans in the face of natural disasters can be framed appropriately by policy makers and those in the emergency services.

Maura Knutson (nee Hurley) and Ross Corotis of the University of Colorado, Boulder, explain that earlier efforts for incorporating a sociological perspective and human risk perception into hazard-mitigation plans, commonly used equivalent dollar losses from [natural hazard](#) events as the statistic by which to make decisions. Unfortunately, this fails to take into consideration how people view natural hazards, the team reports. Moreover, this can lead to a lack of public support and compliance with emergency plans when disaster strikes and lead to worse outcomes in all senses.

The researchers have therefore developed a framework that combines the usual factors for risk assessment, injuries, deaths and economic and collateral loss with the [human perception](#) of the risks associated with [natural disasters](#). The framework includes [risk perception](#) by graphing natural hazards against "dread" and "familiarity". These two variables are well known to social psychologists as explaining the greatest variability in an individual's perception of risk, whether considering earthquakes, landslides, wildfires, storms, tornadoes, hurricanes, flooding, avalanche,

even volcanic activity. "Understanding how the public perceives the risk for various natural hazards can assist decision makers in developing and communicating policy decisions," the team says.

The higher the perceived risk of a natural disaster, the more people want to see that risk reduced and that means seeing their tax dollars spent on mitigation and preparation. For example, far more money is spent on reducing earthquake risk than on reducing the risk from wildfires, perhaps because the perceived risk is much greater, even though both will cause significant losses of life and property. The team's new framework for [risk assessment](#) will act as an aid in decision making for these types of situations as well as perhaps even offering a way to give members of the public a clearer understanding of actual risk rather than perceived risk.

More information: Hurley, M.A. and Corotis, R.B. (2014) 'Perception of risk of natural hazards: a hazard mitigation plan framework', *Int. J. Risk Assessment and Management*, Vol. 17, No. 3, pp.188–211.

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