Impact of Risk Perception on Risk Communication and Community Resilience Enhancement

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INTRODUCTION

Past studies have demonstrated that there is a relationship between risk perception, risk tolerance and mitigation and adaptation planning. In terms of hazard mitigation, risk perception drives risk tolerance, which drives mitigation. When people experience high risk perception, their risk tolerance is typically lowered causing them to become more likely to demand mitigation policies or programs that help minimize losses.

METHODS

In order to determine the effect of risk perception on overall vulnerability, the survey results were used in a separate SERV model and compared to the original SERV model. While risk perception was found to be a significant indicator in the model, the overall classified results showed no difference between the two SERV models.

RESULTS

The results were used to determine how residents felt blue-green algal blooms might impact their attitude toward future development or SES resource availability. Focus groups were then conducted to validate the survey results. These were then used as indicator inputs in the Spatially Explicit Resilience-Vulnerability (SERV) model. The SERV model measures the impact of social factors on SES vulnerability using place, spatial and scale-specific biophysical indicators for Fernan Lake, ID.

CONCLUSIONS AND FUTURE WORK

Research results demonstrate that residents are concerned about the impacts of blue-green algal blooms, but the level of interest in acting on those concerns varies across the study area. However, the size of the study area made the results of the survey have no effect on the SERV model output when they were added to the model as indicators. Future work would involve expanding the study areas and incorporating additional visualization techniques such as these below to communicate risk.

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