

Illinois Geographical Society

Research Grant Project Summary

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Title: Risk Perception in Small Island Developing States: A Case Study in the Commonwealth of Dominica

I am thankful to have received an Illinois Geographical Society Research Grant to study Risk Perception in Small Island Developing States (SIDS). Understanding risk perception in SIDS is an essential step towards reducing vulnerability on these at-risk island states. To carry out the research, a case study in the Eastern Caribbean's Commonwealth of Dominica was conducted which used the island's notable volcanic risk as the research focus.

Research methods and results:

Focus groups were conducted in 18 villages throughout Dominica. During the focus groups, participants produced and colored maps to show where they believed volcanic risk existed on the island. Participants also shared their reasoning behind their maps. Furthermore, surveys were administered to collect basic sociodemographic information. Subsequently, hand-drawn maps were converted to raster images and aggregated to various configurations using raster calculator. Participant's explanations of their maps were transcribed, coded, and analyzed qualitatively according to Strauss' grounded theory to identify trends in thought processes among demographic groups.

The perceived volcanic risk from the sample groups was compared to the risk objectively identified and modeled by United States Agency for International Development to identify discrepancies in perceived versus identified threats. The results showed that while the perceived risk did generally reflect the modeled risk, there were specific areas of the country where the risk was over or under estimated. Additional emphasis could be placed on these areas during outreach efforts to raise awareness.

The map results and discussions from different demographic groups were compared to identify trends in risk perception. A few of the findings were as follows:

- Men generally perceived the island to be higher risk than women
- Overall, participants were more interested in talking about the hazardous areas than the safe areas of the country
- Participants tended to think of the risk spatially in relation to the island's mountains or geothermal features. Interesting, all demographics placed a higher emphasis on the mountains except the women who focused more on the geothermal features.

- There were clear differences in demographic group's levels of confidence when talking about what they believed. For example, women, young adults (under 30) and older adults (over 60) made many more statements about how they had guessed or how long it had been since they were in school, regardless of the accuracy of their assessment.

Understanding how demographic variables influence risk perception facilitates the development of better, and more tailored, public outreach campaigns that could save lives when the next hazard threatens Dominica.

Personal experiences and development:

My time (as well as my husband's and son's time) in Dominica was incredible. It was great to get to know people and experience the local culture. Furthermore, I was able to develop and teach an intro to GIS course at the Dominica State College. Unfortunately, our time was cut short. I had initially planned to conduct 25 focus groups. However in September, just days after the 18th focus group, the island was directly hit by Hurricane Maria, the eye of which went straight over our apartment! It was an intense experience; from preparing for landfall, to the storm itself, to recovery for the first week after the storm, and eventual evacuation. Thankfully, many of our friends are beginning to have power restored and are in good spirits! We were able to return to Dominica briefly in December to collect what we left behind and say a proper goodbye to friends and colleges.

Also in December, my family was relocated to Barbados so I could complete the data analysis. While there, I was able to interview professionals from the USAID, the Caribbean Disaster Emergency Management Agency, the University of the West Indies, and the Red Cross. I also had an internship with the Red Cross Caribbean Disaster Risk Management Reference Center, which has evolved to a contract position for which I am co-developing the Red Cross' first GIS training course!

My experiences conducting fieldwork were fantastic. I am pleased with the results of the study and I am currently finishing my thesis and preparing a journal manuscript. Having support from the Illinois Geographic Society meant a lot to me and enabled the project to be successful. I enjoyed attending and presenting at this year's conference and I hope to remain involved with the society in the years to come!

With much gratitude,

Hannah Eboh

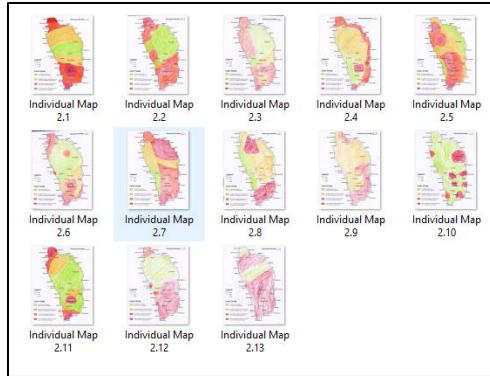
Photos on next page:



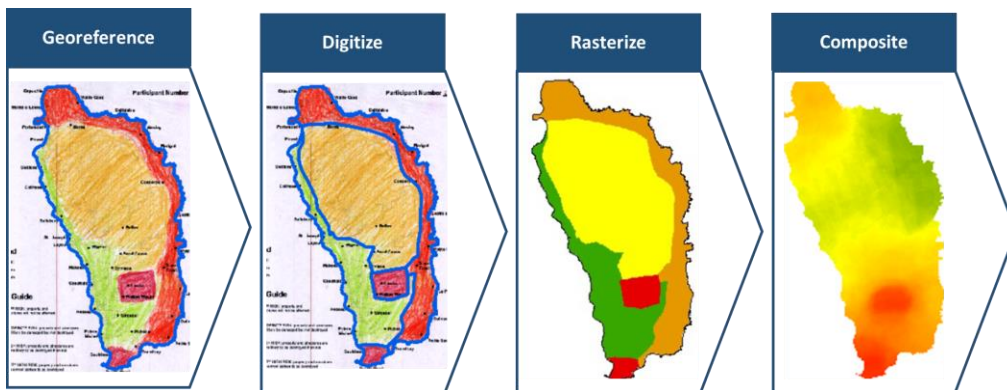
Photos showing participatory mapping during focus groups



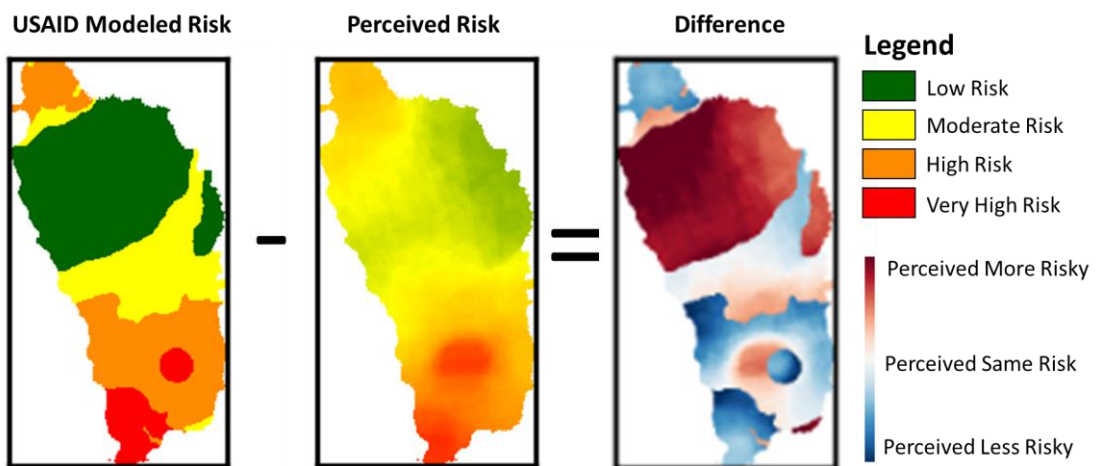
Photos showing focus group "show and tell"



Sample of the individual maps generated from one focus group



Process from taking the individual maps to the composite map for all participants (first three images were taken of one individuals map, although the same process was applied to all maps)



Results from the comparison between the modeled and perceived risk maps.