Conveying the Complexity of Volcano Monitoring, Mitigation and Evacuation in the Context of an Interactive Strategy Game for Children

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Volcanic eruptions are multi-hazard events that express themselves in a multitude of permutations that include gas, ash and rockfall, mudflow, burning clouds and lava flows. These typically complex sequence of events can be monitored to better understand and sometimes anticipate the timing of the most potentially destructive moments. The practice of monitoring multi-hazard volcanic activity and using alert levels facts are commonly understood by Earth scientists and emergency evacuation managers, but conveying this complexity to children remains a challenge. The Earth Girl Volcano interactive game distills the complexities of volcanic monitoring, mitigation and evacuation into an easy-to-use tool set that children can apply to a variety of volcanic hazard scenarios. This presentation reviews our simplified characterizations of volcanic hazard tools and scripted scenarios.