

### **Mitigation Strategies - Montserrat Volcano**

Montserrat Volcano is located south of the Island of Montserrat. In 1995, the active volcano released ashes all over the island for months, changing the island's landscapes and leaving locals no choice but to evacuate. This volcanic eruption claimed the life of 19 people and revealed the economic and social issues they were experiencing during that period.

The hazard found from a Caribbean volcanic eruption is the thick and viscous lava that does not travel far from the vent and creates domes promoting the formation of pyroclastic flows and surges, generating ballistic projectiles and ashes, and creating lahars/mudflows. Those dangerous events can cause damage to infrastructures, vegetation, and landscapes they crossed path with and causes respiratory issues <sup>1</sup> such as asthma, and exercise-induced bronchoconstriction (EIB). <sup>2</sup>

The seriousness of this volcanic eruption and the damages it caused prompted The National Emergency Management Organization (NEMO) and the Office of Disaster Management (ODM) to work together along with stakeholders to protect locals from volcanic hazards. They are to use information gathered by researchers from the University of the West Indies Seismic Research Center (English Islands) and L'Institut de physique du globe de Paris (French Islands) who are responsible and trained to look for variations in patterns that indicate an upcoming eruption, to test gas, waters, and look deformation of soils to develop and execute emergency strategies for locals.

They are also encouraged to reach out for assistance from the Caribbean disaster emergency management agency (CDEMA), the Red Cross, and other organizations that can provide necessary resources in case of emergencies. But primarily their duty is to effectively prepare for hazards and assess risk, to develop and maintain emergency plans, to educate and notify people about risk and danger, to respond to crisis from hazard, and to evacuate effectively if necessary.

Not only that, they have encouraged locals to search and have accurate information about volcanic hazards in their zones, to know the location of the nearest volcano comparatively to their home or job and how hazards could impact the area, to know what the hazard system alert is and to know what action is required from each citizen for each level of the hazard, to learn and understand the emergency plan for the area, to create a family plan and making sure each family is aware of the plan, to arrange for accommodation in case of evacuation, and to pack essential items (Flashlight, radio/battery, medication, water filters, ash mask). <sup>1</sup>

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### References:

- 1- Outreach at Montserrat Volcano Observatory MVO. Volcanism in the Eastern Caribbean. 2014.  
[https://www.youtube.com/watch?v=BP5\\_OW8GvtQ](https://www.youtube.com/watch?v=BP5_OW8GvtQ)
- 2- L. Forbes, D. Jarvis, J. Potts, and P. Baxter. Volcanic ash and respiratory symptoms in children on the island of Montserrat, British West Indies. Occupational & Environmental Medicine. 2003.  
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