Advice Sheet - Personal Safety during Volcanic Eruption

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Categories: Environment

Although the majority of volcanoes are dormant, there nonetheless remain over 1,500 active volcanoes in the world. Among these, the most frequently visited are found in Italy (Etna, Vulcano, Stromboli), Indonesia (Mt. Bromo, Merapi, Krakatoa, Gede, Papandayan, Semeru, Kawah Ijen), Japan (Mt. Fuji, Sakurajima, Unzen), Hawaii (Kilauea, Mauna Loa), and Tanzania (Mt. Kilimanjaro, Oldoinyo Lengai, Meru).

Volcanic activity may manifest itself in different ways, from flowing lava to violent explosions (that can be felt hundreds of meters away) accompanied by spewing ash, rocks, and toxic gases. Volcanic ash can travel great distances and can result in health problems, contaminated water supplies, damaged machinery including airplanes, and reduces visibility. Volcanic eruptions, like earthquakes, generally coincide with other natural catastrophes, such as earthquakes, and can provoke rockslides, mudslides, landslides, acid rain, fire, and even tsunamis. If you are traveling to a known volcanic zone, bear in mind that there is a certain risk. Volcanic eruptions cannot be forecasted accurately. Even if the volcano has not erupted in many years, there is still a possibility that it would erupt.

Preventive Measures

Should your travels take you into an area with strong volcanic activity, make sure that you are aware of the alert system used by local authorities and be prepared to evacuate your residence at any time. It is also recommended that you bring a pair of protective glasses and a protective mask with you on your trip.

How to Respond

Know your area’s risk from volcanic eruptions. Be familiar with evacuation and shelter plans. If available, sign up for notifications on the local community warning systems. Stockpile water, batteries, and other essentials. Keep important documents in waterproof containers

During a Volcanic Eruption

- Firstly, remain calm, follow local media coverage, and be prepared to leave your location as soon as you receive an evacuation order.
- If an evacuation order is not issued or if you are unable to follow the order, take refuge inside and cover your head.
- Avoid areas sheltered from wind, valleys located at the base of the volcano, and areas downwind of the volcano. Avoid fresh lava flows.

- Close all doors and windows. Seal all non essential doors and windows. Use damp towels to cover the bottom of all external doors. Shut off air conditioning as well as any ventilation systems (ventilators, fireplaces, etc.) to limit ash ingress. If possible, shelter in an interior room above ground level that has no windows. Fill buckets, containers, sinks, and bathtubs with clean water as eruptions might disrupt or contaminate water supply.

- Limit your time outdoors. Wear long sleeves, pants, and protective eyewear as well as a mask to protect yourself from ash (if you do not have a mask, a scarf will also work). Ash can cause serious skin and respiratory irritation. Stay away from lava flows; look well ahead before crossing any valley or bridge. If possible, avoid driving over ash. If it is unavoidable, maintain a speed below 55 kph (35 mph).

After a Volcanic Eruption

- Follow developments via local media, obey all issued instructions, and provide aid to others in need.
- Restrict the use of cellular phones to emergencies only.
- Check that there is no gas leak. If you smell a suspicious odor, open the windows, leave the area, and call the appropriate authorities. If possible, shut off the gas supply.
- Check your electrical connections. If you see sparks, loose electrical wires, or smell a burnt odor, immediately shut off the electricity and call the appropriate services.
- Check that your water and sewer pipes have not been damaged. If in doubt, do not use the toilets or bathroom and contact a plumber.
- Clear off the roof of the building; the weight of the ash could cause it to collapse. Be careful not to contribute additional weight to an overloaded roof. Be very careful as ash makes surfaces slippery.

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