

It is therefore very important to monitor Etna and to put in place mitigation to reduce effects.

(b) Add the three words/phrases seen below into the appropriate space in the table below:-

COORDINATION	RISK ANALYSIS	MITIGATION
WORD/PHRASE	DEFINITION	
	To take action to minimise the impact of an identified natural disaster.	
	To develop plans and then organise, train and manage all persons with responsibility in the event of a disaster.	
	To identify areas where there are potential natural hazards that could affect human activities.	

READ: One powerful volcano on the coast of Sicily is Mount Etna. There is a very high population of both rural and urban areas (about 1 in 5 of all Sicilians live within striking distance) of Etna. About 1 million live in Catania city alone there are in excess of 500,000 people.

Luckily, Etna's lava flows don't usually kill. However, the impact of a volcanic eruption on peoples' livelihoods, property and infrastructure (e.g. roads, airports, water supplies) can be huge. When mass evacuations are needed when lava flows threaten.

MONITORING ETNA:

Over the last 100 years, Etna has been monitored increasingly more sophisticated techniques are being used with the hope of being able to predict an eruption.

It is the Istituto Nazionale di Geofisica e Vulcanologia (INGV), Catania section, that monitors Etna. Its monitoring systems work 24/7...which is good to know!

Monitoring methods include both:-

- permanent networks of remote sensors (e.g. seismic, geodetic, geochemical and video) directly linked to INGV in Catania ... along with ...
- occasional field observations, surveys and laboratory analyses



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TASK: Add the following "monitoring words" into the correct section of the table below:-

SEISMIC GEODETTIC GEOCHEMISTRY VIDEO

METHOD OF MONITORING	WHAT IT MEASURES/DETECTS
	...the variations in the shape of Etna and the changes in its slope morphology.
	...the nature of the gases (e.g. CO ₂) and groundwater (their chemical and isotopic composition) coming from Etna.
	...the earthquakes triggered by deep movements of magma that migrate to the surface of Etna.
	...remotely sensed images (webcams) in densely populated areas (visible, infrared and thermal cameras).