



1. Sicily, overview satellite image mosaic. Data: Sentinel-2 in June 2023.

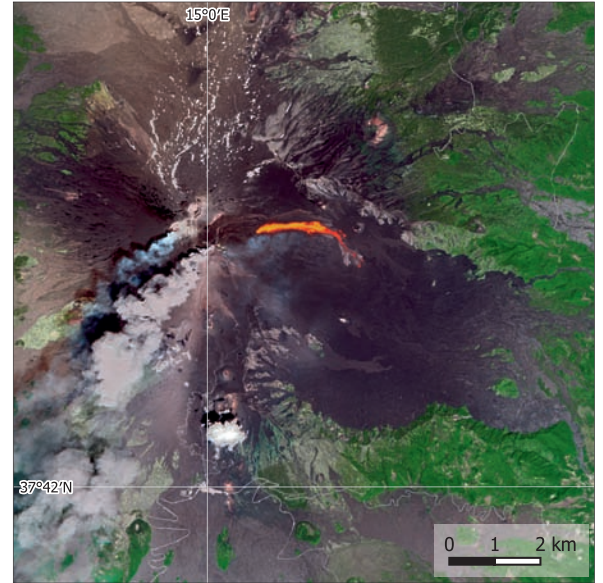
Mount Etna, Italy

Mount Etna, located on the island of Sicily in Italy, is the largest volcano in Europe and one of the most active volcanoes on Earth. This is reflected in a high frequency of eruptions. People living at and near the slopes of the volcano are used to being repeatedly disturbed by volcanic activities. They make use of the advantages of the situation, particularly the fertile volcanic soil and the role of the volcano as a tourist landmark.

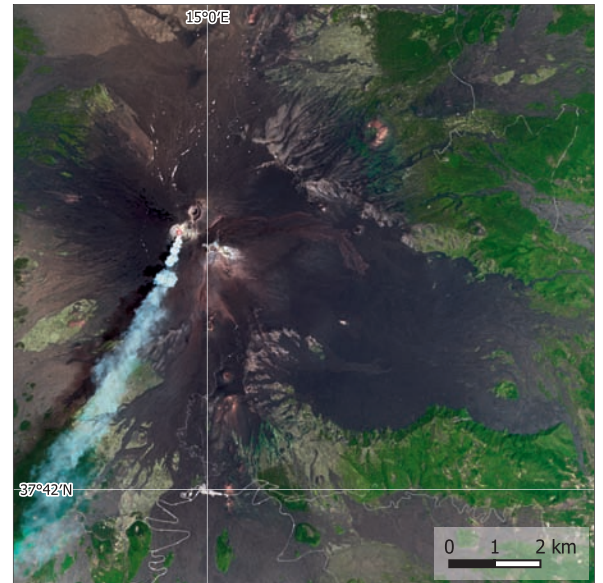
Satellite data is used to closely monitor and quantify damages caused by this natural event. Satellite technology plays a crucial role in tracking the eruption's progress, providing real-time insights into the volcano's behaviour, allowing to map the lava flows, ash plumes, and gas emissions. These observations enable timely warnings to protect nearby communities and air traffic.



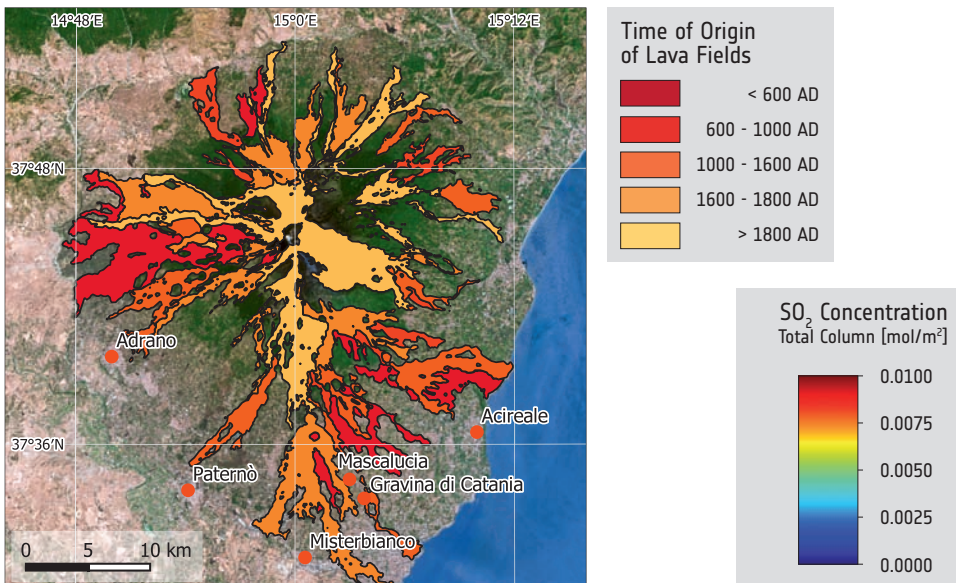
6. Mount Etna during an eruption.



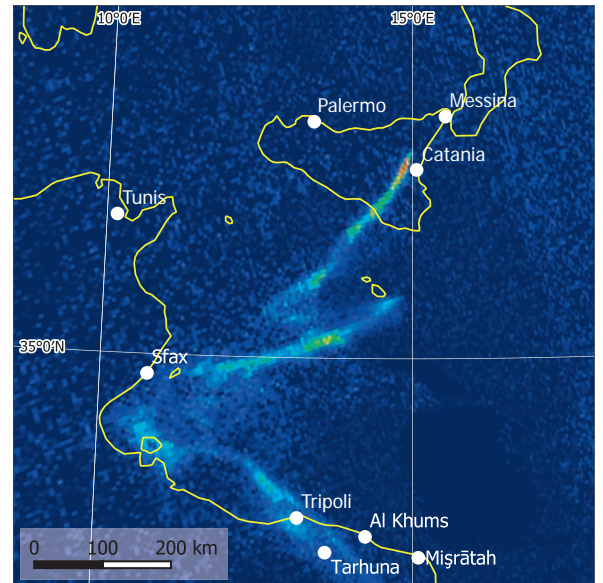
2. Enhanced true colour image of the beginning of the June 2022 eruption of Mount Etna, showing a lava flow east of the summit. Data: Sentinel-2, 2022-06-03.



3. The June 2022 eruption of Mount Etna after the lava flows have stopped. Data: Sentinel-2, 2022-06-21.



5. Map of the age of the lava fields covering the slopes of Mount Etna. Data: Sentinel-2, 2022-07-06.



4. SO₂ concentration (total column) showing the plume of the eruption transported bywinds towards south. Data: Sentinel-5B, 2022-06-21.