



## **Geomorphological changes caused by (re)activation of tectonic structures in Southern Italy**

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This study describes a multidisciplinary approach to the evaluation of seismically triggered landslides that occurred along the Calabrian coasts, southern Italy. Since historical times, earthquakes and sliding phenomena have frequently occurred in this area, suggesting rapid slope morphodynamics. In particular the most exposed area is located in the Messina Straits including Scilla, Bagnara Calabria, Favizzina, Palmi, Villa San Giovanni and Reggio Calabria localities. Here the seismicity is characterized by very strong intensity, higher than X MCS, also accompanied by tsunamis, that caused catastrophic effects, severe damage and thousands of victims. Since the XVI century, ten strong earthquakes have been re-examined taking into account all available historical data, detailed geological and tectonic analysis such as different seismogenic zones and active faults. Coseismic environmental effects, such as surface fault, landslide, coastal settlement, liquefaction and ground cracks, hydrological change have been identified and localized.