


Sisma ed Emergenza Ischia
Ricostruzione Post Terremoto 2017 e Interventi Contro Il Dissesto Idrogeologico




Presidenza del Consiglio dei Ministri

Vice commissario
ing. Gianluca Loffredo

Main characteristics of the island of Ischia.


Demography
Inhabitants 62.327[1]
Density 1.383,62 inhabitants/km²

Physical Geography
Location Tyrrhenian Sea
Coordinates 40°43'N 13°54'E
Archipelago Phlegraean Islands
Surface Area 46,3 km²




Main Economic Activities:


- Tourism
- Thermal Treatments
- Wine Export
- Rent luxury boat



1



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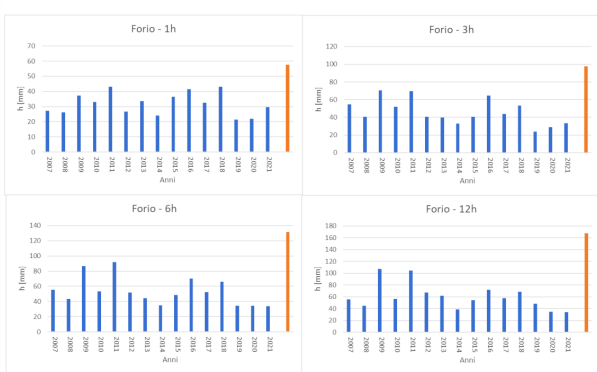


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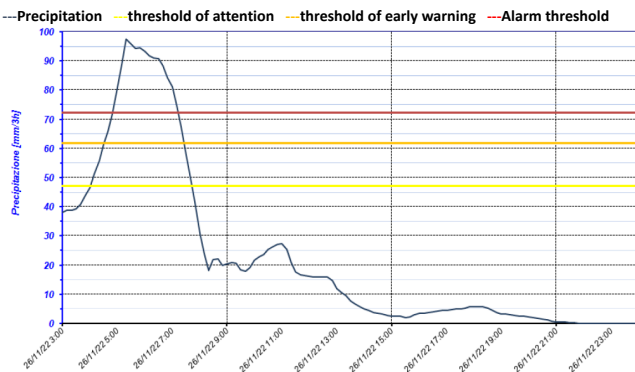
On November 26, 2022, around 05:00, following the torrential rain that fell during the night (126mm in 6 hours, with peaks of 51mm per hour)

Comparison of cumulative rain over 1h – 3h – 6h – 12h for different strong events



Cumulative precipitation over 3 hours - Telemetry rain station in Forio.

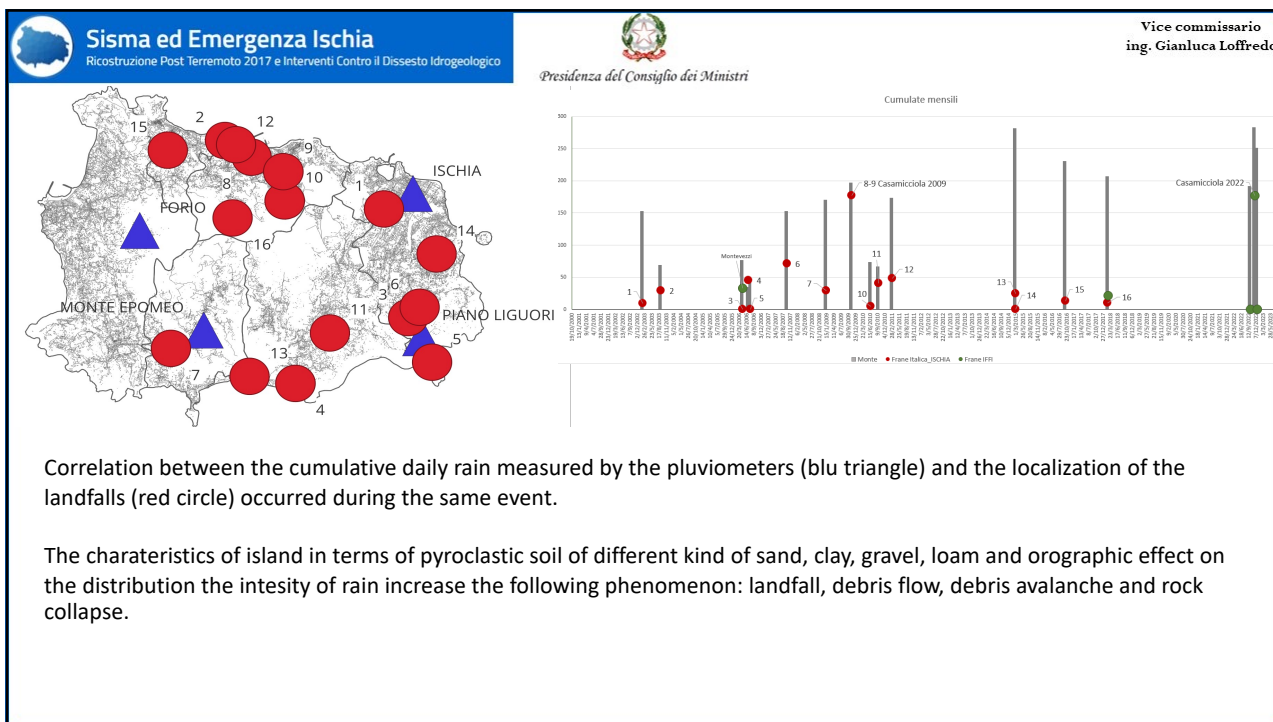
---Precipitation — threshold of attention — threshold of early warning ---Alarm threshold



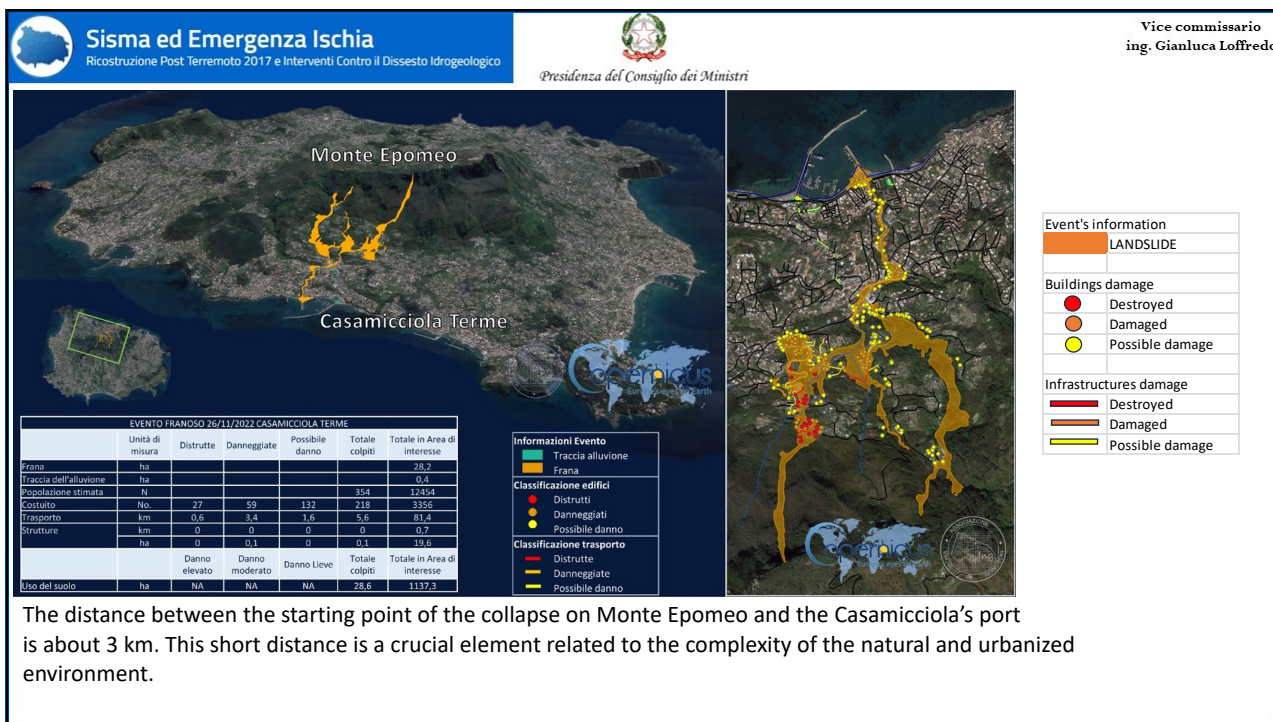
Temporal trend of the 3-hour precipitation measured by the pluviometer located in Forio

Consequences
Deaths 12
People evacuated 230

2



3




4




Big stones have arrived to the port travelling for hundreds meters

In many points the height of mud measured about 2-3 meters

5

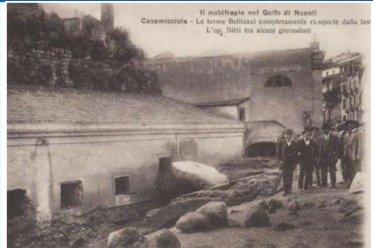


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Il moltiplicarsi nel Golfo di Napoli Casamiciola - Le terme Belliuzzi completamente sommerse dalla lava L'ing. Nitti tra alcuni giorni



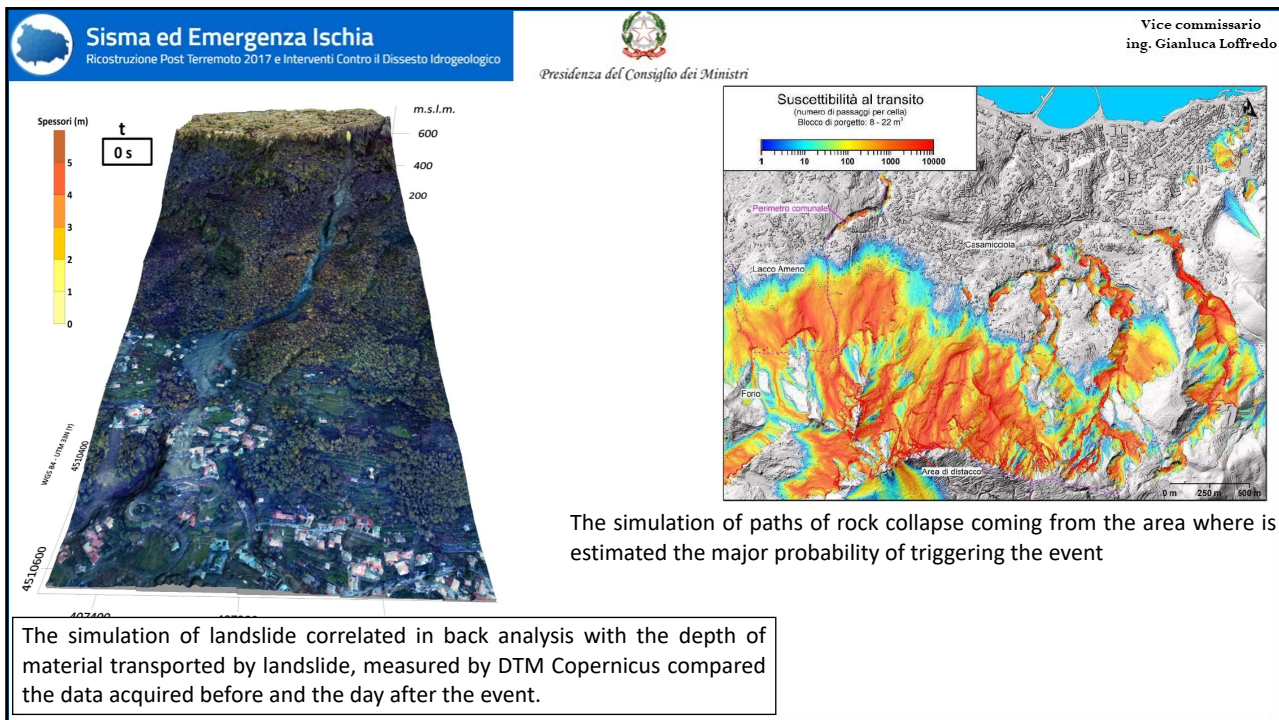


The pictures show the effects of 1910 flood. Close to Terme Belliuzzi arrived incredible stones with a size more than 10 meter cube.



The reconstruction occurred during the first three decades of the 20th century provided an important set of infrastructures in order to mitigate the hydrogeological risk. Weir, terracing with masonry wall, riverbank protection


6




7



8



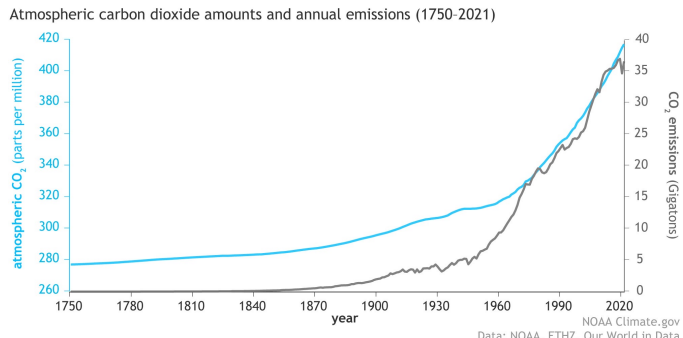
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CONCLUSIONS:
the challenge of climate adaptations is very costly in economic and temporal terms. Not being able to deal with the increase in carbon dioxide in the atmosphere for the next 10-20 years, it is undelayable to invest resources to mitigate the problem at the source in order to discover revolutionary solutions to "bring" CO₂ back into the geosphere. It is an epochal challenge that requires primary research, obviously accelerating the transition from fossil fuels to renewable energies.

Atmospheric carbon dioxide amounts and annual emissions (1750-2021)



NOAA Climate.gov
Data: NOAA, ETHZ, Our World in Data