Istituto Ambiente Marino Costiero

Gruppo di GeoHazard:

- Hazard costiero
- Fenomeni alluvionali
- Fenomeni franosi
- Hazard sismico

Commissioni internazionali:

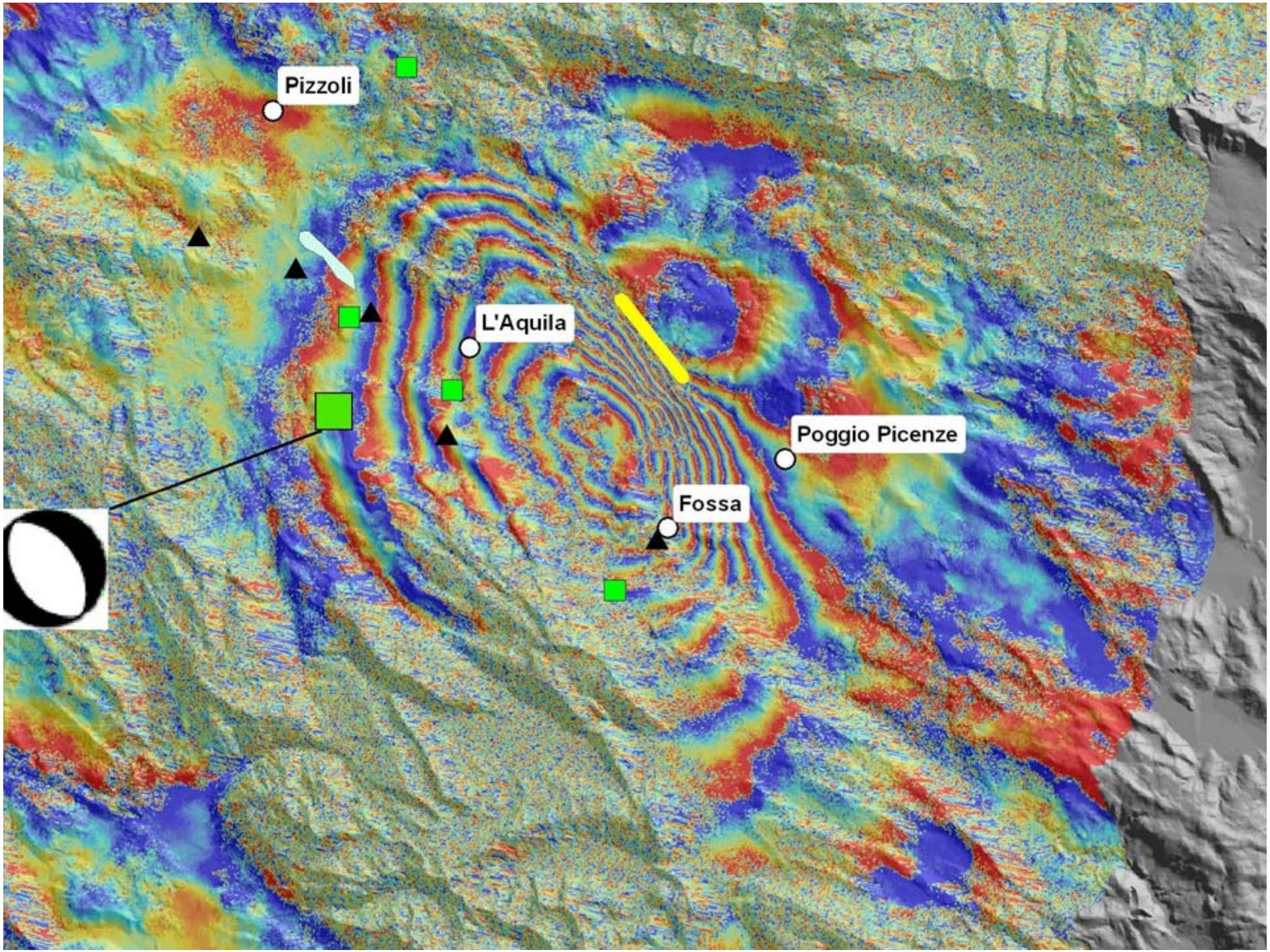
INQUA, EGU, IAEG,
TERPRO,GEOSS

Istituto Ambiente marino Costiero

- **Valutazione Hazard Sismico**
- **Effetti sismoindotti**
- **Intervento a seguito del terremoto in Abruzzo del 6/04/2009**

E. Esposito, F. Molisso, S. Porfido,

M. Sacchi, Violante C.


Pizzoli
L'Aquila
Poggio Picenze
Fossa

ESI 2007 Form

This 2 pages - form has to be used for field surveys immediately after the earthquake and for the revision of environmental effects from historical sources. It is designed at the site level (one different form for each different site).
Fields in *Italic* should be filled when required information is available.
A complete Guide to Compilation is available at the end of this Form.

Authors & Institution

1. _____
2. _____
3. _____
4. _____
5. _____

Earthquake

Earthquake Code _____ Earthquake Region _____

Year_____ Month _____ Day_____ Greenwich Time_____Epicentral Intensity_____ Intensity type_____

Magnitude_____ Magnitude type_____ Focal Depth (km) _____ Depth accuracy_____

Latitude _____ Longitude_____Earthquake References_____

Surface faulting (yes/ not): _____ *Map of rupture zone (available / not available)* _____

Maximum Displacement (cm) _____*Total Rupture Length (km)*_____ *Slip-sense* _____

*Surface faulting References*_____

Area of max secondary effects (kms) _____ *Reference for secondary effects* _____

ESI epicentral intensity assessment _____

Locality

Locality Code_____ EEE-Survey Date _____ Surveyors _____

Locality _____ Town/District_____ Locality length (m) _____ Locality width (m) _____

Latitude _____ Longitude _____ Altitude (m) _____ Location accuracy _____

Distance from epicentre (km) _____ Local PGA (g) _____ Geomorphological setting_____

Local Macroseismic Intensity _____ **Intensity type**_____

EEE site

EEE Code_____ EEE type_____ Site length (m) _____ Site width (m) _____

Site position _____Latitude _____ Longitude _____ Altitude (m) _____ Loc. accuracy _____

Description _____

Notes on the site _____

Bedrock lithology_____ Soft sediment lithology _____

Strength_____ Structure_____

EEE Site References _____

Effects on man-made structures

Type of man-made structures _____

Level of damage _____ Single/multiple _____

Surface faulting

Strike (°) _____ Dip (°) _____ Slip vector (°) _____ Type of movement_____

Vertical Offset (cm) _____ Horizontal Offset (cm) _____ Displaced features _____

Length of fault segment (km) _____ Scarp _____ Associated features:_____

Hydrologic anomalies

Surface water effects_____ Ground water effects_____

Temperature Anomaly ☐ Temperature change (°C) _____ Discharge anomaly☐ Discharge change (l/s)_____

Chemical anomaly Change chemical components_____ Gas emission ☐ Gas element _____

Duration of anomaly (days) _____ Time delay (hrs) _____ Velocity_____

Anomalous waves/tsunami

Max wave height (m) _____ Width (m) _____ Length of affected coast (km) _____ Time delay (min) _____

Description_____

Ground cracks

Origin_____ Strike (°) _____ Dip (°) _____ Areal density (Nr/m²) _____

Shape_____ Max opening (cm) _____ Length (m) _____

Slope movements

Type_____ Max dimension of blocks (m³) _____Total volume (m³)_____

Linear density (Nr/m) _____ Areal density (Nr/m²) _____ Humidity_____

Time delay (hrs) _____ Width (m) _____ Slip amount (m) _____

Liquefactions

Type_____ Max diameter (m) _____ Linear density (Nr/m) _____

Areal densit y (Nr/m²) _____ Max lowering/uplift (m) _____ Shape _____

Humidity_____ Depth of water table (m) _____ Water ejection ☐ Sand ejection ☐

Velocity _____ Time delay/advance (hrs) _____

Other effects

Three shaking ☐ Dust clouds ☐ Jumping stones ☐ Other_____

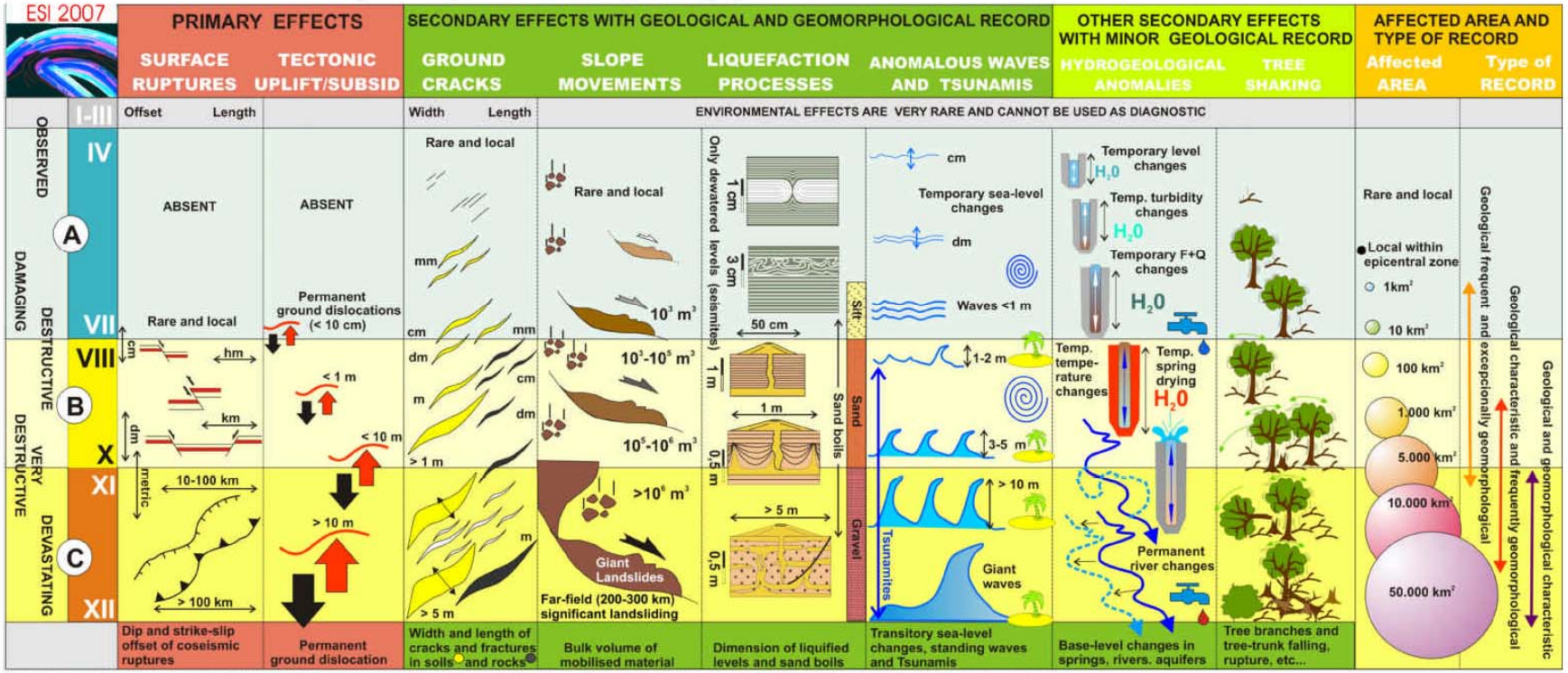
Description_____

Sketch

ESI local intensity assessment _____

CHART OF THE INQUA ENVIRONMENTAL SEISMIC INTENSITY SCALE 2007 - ESI 07

by The Spanish Working Group (modified from Silva et al., 2008)



Michetti et al., 2007. Environmental Seismic Intensity scale - ESI 2007. Memorie Descrittive della Carta Geologica d'Italia, 74. Servizio Geologico d'Italia, APAT, Rome, Italy

Silva et al., 2008. Catalogue of the geological and environmental effects of earthquakes in Spain in the ESI-2007 Macroseismic scale. Cong. Geol. Esp. Gran Canaria, Spain

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Grazie

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http://www.cnr.it/istituti/FocusByN.html?cds=002&nfocus=8

http://www.apat.gov.it/site/_files/Inqua/ESI_07_form.pdf