

Focus on damage assessment after a natural disaster

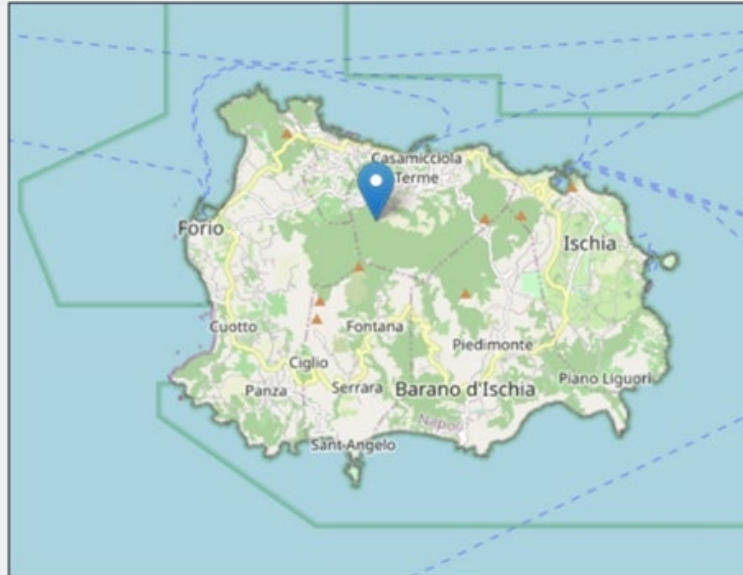
The case of ISHIA ISLAND

August 17, 2017: Earthquake

November 26, 2022: Landslide

EARTHQ UAKE

On August 21, 2017, at 8:57 p.m. (Italian time), an earthquake measuring $M_L 3.6 \pm 0.2$, $M_D 4.0 \pm 0.3$ struck the island of Ischia. Preliminary calculations indicate a magnitude between 3.8 and 4.0, with the epicenter located approximately 1 km southwest of Casamicciola Terme near Maio (latitude 40.74° , longitude 13.90° , depth approximately 2 km or less), with a hypocenter at a depth of 1.73 km. The duration felt was less than five seconds. The earthquake was recorded from Forio to the Phlegraean villages. Following the seismic event of August 21, 2017, the Prime Minister, on August 22, 2017, declared, pursuant to the provisions of Article 3,



paragraph 1, of Decree Law No. 245/2002, converted, with amendments, by Law No. 286/2002, a state of exceptional risk of compromise of primary interests and, with a subsequent resolution of the Council of Ministers on August 29, 2017, declared a state of emergency as a result of the seismic event for the municipalities of Casamicciola Terme, Forio, and Lacco Ameno.

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The initial management and coordination of post-earthquake activities on the island of Ischia began on August 29, 2017, under the supervision of the Commissioner appointed by Order of the Head of the Civil Protection Department No. 476 of August 29, 2017, with the task of:

- a) preparing, pursuant to Article 1, paragraph 4, and within the limits of available financial resources, a plan of urgent measures to be submitted for approval by the Head of the Civil Protection Department;
- b) coordinating activities relating to post-earthquake building safety checks and also coordinating activities to assess the needs of public and private property, as well as economic and productive activities, and submitting the final report on these activities to the Department of Civil Protection (*manages the assessment of damage to both private and public buildings. Draws up the relevant AeDES forms in order to formalize a classification of the usability of the buildings inspected, corresponding to the levels of damage of varying severity and extent*).

Damage assessment - AeDes forms: buildings declared unfit for use on the basis of AEDES forms

Decree no. 01 of 12.09.2017: Ocdpc no. 476 of 29 August 2017: first urgent measures for the earthquake that affected the municipalities of Casamicciola Terme, Forio, and Lacco Ameno on the island of Ischia on 21 August 2017. Approval of the Directive containing "Provisions concerning the deadline for submitting requests for inspection and for reviewing the results."

With reference to the post-earthquake building safety inspection activities (safety inspections and damage surveys as reported in the Prime Ministerial Decree of July 8, 2014 - Aedes form - and in the Prime Ministerial Decree of January 14, 2015 - GL-Aedes form) referred to in Article 9 of OCDPC 476/2017, the deadline for submitting the first inspection request (IPP form) was set for September 22, 2017.

Furthermore, due to the need to repeat the inspection of buildings already inspected with an Aedes or GL-Aedes form, i.e., those reviewed by municipal technical offices, the following operating procedures were established:

- a) as a rule, the inspection of the building thus defined is unique and cannot be repeated;
- b) exceptionally, the inspection of the same building may be repeated on the basis of a request by the interested party accompanied by a sworn technical report submitted to the municipality, which, in agreement with the Commission, will assess each case individually and, if necessary, authorize the new inspection;
- c) the C.O.C. is required to inform the team in charge of the outcome of the previous inspection, and the new form will indicate 'inspection';

DECRETO DEL PRESIDENTE DEL CONSIGLIO DEI MINISTRI 5 maggio 2011

Approvazione del modello per il rilevamento dei danni, pronto intervento e agibilità per edifici ordinari nell'emergenza post-sismica e del relativo manuale di compilazione. (11A06311)
(GU n. 113 del 17-5-2011 - Suppl. Ordinario n.123)

IL PRESIDENTE
DEL CONSIGLIO DEI MINISTRI

Vista la legge 24 febbraio 1992, n. 225 recante «Istituzione del Servizio Nazionale di protezione civile»;

Visto il decreto-legge 7 settembre 2001, n. 343, convertito, con modificazioni dalla legge 9 novembre 2001 n. 401 recante

Decreta:

Art. 1

1. Sono approvati la scheda Aedes di rilevamento dei danni, pronto intervento ed agibilità per edifici ordinari ed il relativo manuale di cui agli allegati 1 e 2 del presente decreto.

2. Le Amministrazioni dello Stato, le Regioni, le Province autonome di Trento e Bolzano e gli Enti locali dotano le proprie strutture della scheda e del manuale di cui al comma 1 e li utilizzano in occasione di eventi sismici per il rilevamento speditivo dei danni, la definizione di provvedimenti di pronto intervento e la valutazione dell'agibilità post-sismica degli edifici ordinari, da intendersi come unità di tipologia strutturale ordinaria (in muratura, in cemento armato o acciaio intelaiato o a setti) dell'edilizia per abitazioni e/o servizi.

Articolo 10

Strumenti di rilievo

1. Le verifiche di danno ed agibilità sugli edifici ordinari sono effettuate ai sensi del decreto del Presidente del Consiglio dei Ministri del 5 maggio 2011, attraverso la compilazione della *“Scheda Aedes per il rilevamento dei danni, pronto intervento e agibilità per edifici ordinari nell'emergenza post-sismica”*, e relativo Manuale, approvati nella loro versione aggiornata e allegati al presente decreto di cui costituiscono parte integrante (Allegati B e C).
2. Le Amministrazioni dello Stato, le Regioni, le Province autonome di Trento e Bolzano e gli Enti locali dotano le proprie strutture della scheda e del manuale aggiornati di cui al comma 1 e li utilizzano in occasione di eventi sismici per il rilevamento speditivo dei danni, la definizione di provvedimenti di pronto intervento e la valutazione dell'agibilità post-sismica degli edifici ordinari, da intendersi come unità di tipologia strutturale ordinaria (in muratura, in cemento armato o acciaio o legno, intelaiato o a setti) dell'edilizia per abitazioni e/o servizi.

The assessment of usability in post-earthquake emergencies is a temporary assessment. and expeditious – that is, formulated on the basis of expert judgment and conducted within a limited time frame, based on simple visual analysis and the collection of readily available information – aimed at establishing whether, in the event of an ongoing seismic crisis, the buildings affected by the earthquake can be used while reasonably protecting human life.

Therefore, the declaration of usability consists exclusively of verifying that the functionality of the building, as it was before the earthquake, has not been substantially altered due to the damage caused by the earthquake itself. This means that following a subsequent tremor, of an intensity not greater than that for which verification is required, it is reasonable to assume that there will be no significant increase in the overall level of damage.

This definition presupposes knowledge of the maximum intensity that may occur at the site during the seismic crisis, i.e., *the reference event* against which to formulate the assessment of usability.

However, under the current emergency management policy, the reference event has not been explicitly defined, nor has the body responsible for providing this event for each location been established.

A useful reference in this regard is therefore the publication of the macroseismic survey with the intensities reported for the locations affected by the earthquake by the relevant authorities.

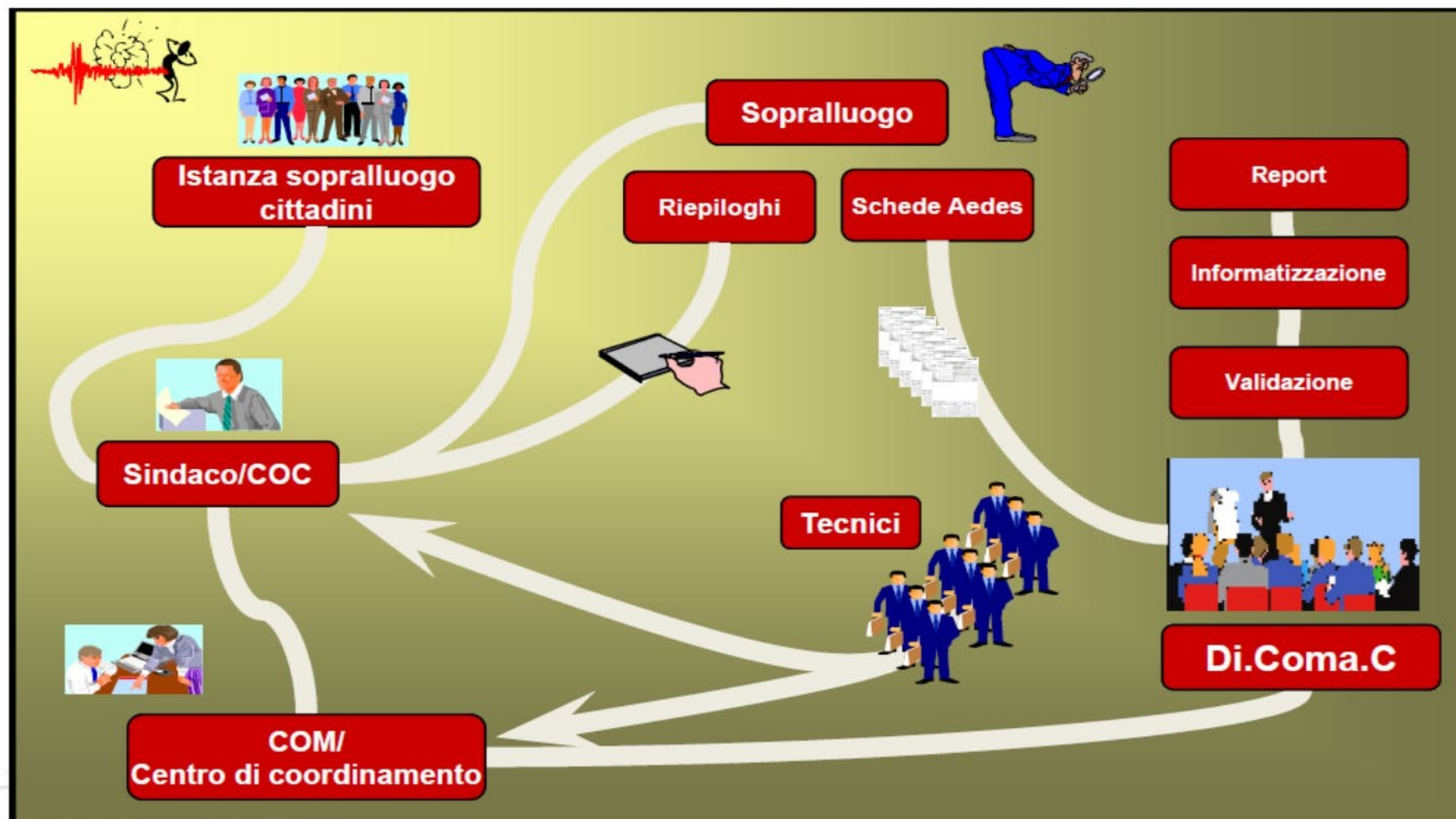
EARTHQUAKE



Procedure operative per lo svolgimento della campagna di sopralluoghi

www.protezionecivile.gov.it

IL PERCORSO DELLE OPERAZIONI



ISTANZA DI SOPRALLUOGO PER EDIFICI/OPERE PUBBLICHE, PRIVATI

Al Sig. Sindaco del:

Richiesta n. _____

| | |
|-----------|------------------------------|
| Comune | _____ |
| Provincia | _____ |
| Regione | _____ |
| Evento | _____ (giorno, mese, anno) |

Il sottoscritto _____
residente nel Comune di _____
indirizzo _____
tel. _____
in qualità di: ☐ Proprietario
☐ Inquilino
☐ Legale rappresentante della proprietà
☐ Altro (specificare) _____

CHIEDE

che venga effettuata una verifica delle condizioni di agibilità dell'edificio denominato

sito in _____
Frazione/Località _____
Indirizzo _____
Dati Catastali: Foglio _____, Allegato _____, Particella/e _____

| | | | |
|------------------------|---|--|--------------------------------------|
| Tipologia | <input type="checkbox"/> Edificio ordinario ¹ | | |
| | <input type="checkbox"/> Edificio di grande luce o a struttura prefabbricata ² | | |
| | <input type="checkbox"/> Altri manufatti non ordinari ³ | | |
| Edificio composto da: | <input type="checkbox"/> Un'unità immobiliare <input type="checkbox"/> Più unità immobiliari | | |
| Uso prevalente | <input type="checkbox"/> Residenziale | <input type="checkbox"/> Servizio pubblico | <input type="checkbox"/> Commerciale |
| | <input type="checkbox"/> Ufficio | <input type="checkbox"/> Produttivo | <input type="checkbox"/> Altro _____ |
| Proprietà | <input type="checkbox"/> Pubblica <input type="checkbox"/> Privata | | |
| Attualmente utilizzata | <input type="checkbox"/> Sì <input type="checkbox"/> No <input type="checkbox"/> Parzialmente | | |

_____ Spazi da compilare preferibilmente da parte del Centro di Coordinamento.

Data

____/____/____

Firma del richiedente

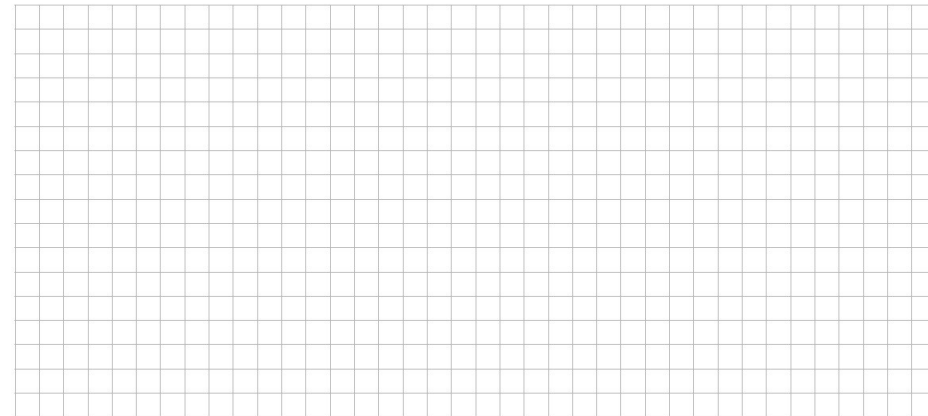
¹ Edifici dell'edilizia per abitazioni e/o servizi, da intendersi quali unità di tipologia strutturale ordinaria in muratura, in cemento armato o acciaio o legno con struttura a telaio o a travi.
² Edifici a tipologia specialistica, in cemento armato in opera o prefabbricato, muratura, acciaio, legno, quali capannoni industriali, edifici sportivi, centri commerciali, mercati coperti, parcheggi, etc., di grande luce. Per grande luce è da intendersi una dimensione minima delle campate dell'ordine di grandezza di circa 10 m.
³ Opere con caratteristiche non ordinarie tipo: ponti, serbatoi, ciminiere, torri, porte monumentali, muri di sostegno, cinte murarie, beni archeologici, fontane, etc.

ID SCHEDA: _____

SEZIONE 1 - IDENTIFICAZIONE EDIFICIO

| | | |
|--|---|--|
| Provincia: _____ | IDENTIFICATIVO SOPRALLUOGO Squadra _____ Scheda n. _____ Data _____ | |
| Comune: _____ | IDENTIFICATIVO EDIFICIO Istat Reg. _____ Istat Prov. _____ Istat Comune _____ | |
| Frazione/Località: (denominazione Istat) | N° aggregato _____ N° edificio _____ | |
| 1 <input type="radio"/> VIA _____ | Cod. di Località Istat _____ Tipo carta _____ | |
| 2 <input type="radio"/> CORSO _____ | Sez. di censimento Istat _____ N° carta _____ | |
| 3 <input type="radio"/> VICOLO _____ | Dati catastali Foglio _____ Allegato _____ | |
| 4 <input type="radio"/> PIAZZA _____ | Particelle _____ | |
| 5 <input type="radio"/> ALTRO _____ (Indicare contrada, località, traversa, salita, etc.) | Posizione edificio <input type="radio"/> Isolato <input type="radio"/> Interno <input type="radio"/> D'estremità <input type="radio"/> D'angolo | |
| COORDINATE <input type="radio"/> piano UTM <input type="radio"/> geografiche <input type="radio"/> altro _____ | Codice Uso _____ | |
| Fuso _____ Datum _____ Nord/Lat _____ | | |
| (32-33-34) <input type="radio"/> ED50 <input type="radio"/> WGS84 Est/Long _____ | | |
| DENOMINAZIONE EDIFICIO O PROPRIETARIO _____ | | |

MAPPA DELL'AGGREGATO STRUTTURALE CON IDENTIFICAZIONE DELL'EDIFICIO



SEZIONE 2 - DESCRIZIONE EDIFICIO

| Dati metrici | | | Età (max 2) | Uso - esposizione | | |
|-------------------------------|-------------------------------------|---|-------------------------------------|---|----------------|--------------------------------------|
| N° Piani totali con interrati | Altezza media di piano [m] | Superficie media di piano [m²] | Costr. e ristr. | Uso | N° unità d'uso | Utilizzazione |
| 1 <input type="radio"/> 9 | 1 <input type="radio"/> < 2,50 | A <input type="radio"/> < 50 I <input type="radio"/> 400 ÷ 499 | 1 <input type="checkbox"/> < 1919 | A <input type="checkbox"/> Abitativo | _____ | _____ |
| 2 <input type="radio"/> 10 | 2 <input type="radio"/> 2,50 ÷ 3,49 | B <input type="radio"/> 50 ÷ 69 L <input type="radio"/> 500 ÷ 649 | 2 <input type="checkbox"/> 19 ÷ 45 | B <input type="checkbox"/> Produttivo | _____ | A <input type="radio"/> > 65% |
| 3 <input type="radio"/> 11 | 3 <input type="radio"/> 3,50 ÷ 5,00 | C <input type="radio"/> 70 ÷ 99 M <input type="radio"/> 650 ÷ 899 | 3 <input type="checkbox"/> 46 ÷ 61 | C <input type="checkbox"/> Commercio | _____ | B <input type="radio"/> 30÷65% |
| 4 <input type="radio"/> 12 | 4 <input type="radio"/> > 5,00 | D <input type="radio"/> 100 ÷ 129 N <input type="radio"/> 900 ÷ 1199 | 4 <input type="checkbox"/> 62 ÷ 71 | D <input type="checkbox"/> Uffici | _____ | C <input type="radio"/> < 30% |
| 5 <input type="radio"/> > 12 | | E <input type="radio"/> 130 ÷ 169 O <input type="radio"/> 1200 ÷ 1599 | 5 <input type="checkbox"/> 72 ÷ 75 | E <input type="checkbox"/> Serv. Pubbl. | _____ | D <input type="radio"/> Non utilizz. |
| | | F <input type="radio"/> 170 ÷ 229 P <input type="radio"/> 1600 ÷ 2199 | 6 <input type="checkbox"/> 76 ÷ 81 | F <input type="checkbox"/> Deposito | _____ | E <input type="radio"/> In costruz. |
| | | G <input type="radio"/> 230 ÷ 299 Q <input type="radio"/> 2200 ÷ 3000 | 7 <input type="checkbox"/> 82 ÷ 86 | G <input type="checkbox"/> Strategico | _____ | F <input type="radio"/> Non finito |
| | | H <input type="radio"/> 300 ÷ 399 R <input type="radio"/> > 3000 | 8 <input type="checkbox"/> 87 ÷ 91 | H <input type="checkbox"/> Turist-ricett. | _____ | G <input type="radio"/> Abbandon. |
| | | | 9 <input type="checkbox"/> 92 ÷ 96 | | _____ | |
| | | | 10 <input type="checkbox"/> 97 ÷ 01 | | _____ | |
| | | | 11 <input type="checkbox"/> 02 ÷ 08 | | _____ | |
| | | | 12 <input type="checkbox"/> 09 ÷ 11 | | _____ | |
| | | | 13 <input type="checkbox"/> > 2011 | | _____ | |

EARTHQUAKE

**SCHEDA DI 1° LIVELLO DI RILEVAMENTO DANNO, PRONTO INTERVENTO E AGIBILITÀ
PER EDIFICI ORDINARI NELL'EMERGENZA POST-SISMICA**
(AeDES 07/2013)

SEZIONE 1 - IDENTIFICAZIONE EDIFICIO

Provincia: **NAPOLI** Comune: **Caramiccoli Terme** IDENTIFICATIVO SOPRALLUOGO
Squadra _____ Scheda n. _____ Data _____

Frazione/Località: _____ IDENTIFICATIVO EDIFICIO
Istat Reg. **15** Istat Prov. **063** Istat Comune **019**

1 ☐ VIA _____ 2 ☐ CORSO _____ 3 ☐ VICOLO _____ 4 ☐ PIAZZA _____ 5 ☐ ALTRO _____
(Indicare contrada, località, traversa, salita, etc.)

N° aggregato **000077** N° edificio _____

Cod. di Località Istat _____ Tipo carta _____
Sez. di censimento Istat _____ N° carta _____

Dati catastali Foglio _____ Allegato _____
Particelle _____

COORDINATE ☐ piano UTM ☐ geografiche ☐ altro _____
Fuso **(32-33-34)** Datum **ED50** Nord/Lat _____
☐ WGS84 Est/Long _____

Posizione edificio ☐ Isolato ☐ Interno ☐ D'estremità ☐ D'angolo

DENOMINAZIONE EDIFICIO O PROPRIETARIO _____ Codice Uso _____

MAPPA DELL'AGGREGATO STRUTTURALE CON IDENTIFICAZIONE DELL'EDIFICIO

SEZIONE 2 - DESCRIZIONE EDIFICIO

| Dati metrici | | Età (max 2) | | Uso - esposizione | |
|-------------------------------|-------------------------------------|---|-------------------------------------|---|----------------|
| N° Piani totali con interrati | Altezza media di piano [m] | Superficie media di piano [m²] | Costr. e ristr. | Uso | N° unità d'uso |
| 1 <input type="radio"/> 9 | 1 <input type="radio"/> < 2,50 | A <input type="radio"/> < 50 I <input type="radio"/> 400 ÷ 499 | 1 <input type="checkbox"/> < 1919 | A <input type="checkbox"/> Abitativo | _____ |
| 2 <input type="radio"/> 10 | 2 <input type="radio"/> 2,50 ÷ 3,49 | B <input type="radio"/> 50 ÷ 69 L <input type="radio"/> 500 ÷ 649 | 2 <input type="checkbox"/> 19 ÷ 45 | B <input type="checkbox"/> Produttivo | _____ |
| 3 <input type="radio"/> 11 | 3 <input type="radio"/> 3,50 ÷ 5,00 | C <input type="radio"/> 70 ÷ 99 M <input type="radio"/> 650 ÷ 899 | 3 <input type="checkbox"/> 46 ÷ 61 | C <input type="checkbox"/> Commercio | _____ |
| 4 <input type="radio"/> 12 | 4 <input type="radio"/> > 5,00 | D <input type="radio"/> 100 ÷ 129 N <input type="radio"/> 900 ÷ 1199 | 4 <input type="checkbox"/> 62 ÷ 71 | D <input type="checkbox"/> Uffici | _____ |
| 5 <input type="radio"/> > 12 | | E <input type="radio"/> 130 ÷ 169 O <input type="radio"/> 1200 ÷ 1599 | 5 <input type="checkbox"/> 72 ÷ 75 | E <input type="checkbox"/> Serv. Pubbl. | _____ |
| | | F <input type="radio"/> 170 ÷ 229 P <input type="radio"/> 1600 ÷ 2199 | 6 <input type="checkbox"/> 76 ÷ 81 | F <input type="checkbox"/> Deposito | _____ |
| | | G <input type="radio"/> 230 ÷ 299 Q <input type="radio"/> 2200 ÷ 3000 | 7 <input type="checkbox"/> 82 ÷ 86 | G <input type="checkbox"/> Strategico | _____ |
| | | H <input type="radio"/> 300 ÷ 399 R <input type="radio"/> > 3000 | 8 <input type="checkbox"/> 87 ÷ 91 | H <input type="checkbox"/> Turist-ricett. | _____ |
| | | | 9 <input type="checkbox"/> 92 ÷ 96 | | _____ |
| | | | 10 <input type="checkbox"/> 97 ÷ 01 | | _____ |
| | | | 11 <input type="checkbox"/> 02 ÷ 08 | | _____ |
| | | | 12 <input type="checkbox"/> 09 ÷ 11 | | _____ |
| | | | 13 <input type="checkbox"/> > 2011 | | _____ |

Realizzato in automatico dall'applicativo Erius.

SEZIONE 3 - TIPOLOGIA (multiscelta; per gli edifici in muratura indicare al massimo 2 tipi di combinazioni strutture verticali-solai)

| Strutture verticali Strutture orizzontali | STRUTTURE IN MURATURA | | | | | | ALTRE STRUTTURE | | |
|--|--------------------------|--|--------------------------|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | Non identificate | A tessitura irregolare e di cattiva qualità (Pietrame non squadrato, ciottoli,...) | | A tessitura regolare e di buona qualità (Blocchi; mattoni; pietra squadrata,...) | | Pilastri isolati | Mista | Rinforzata | 1 Telai in c.a. |
| | | Senza catene o cordoli | Con catene o cordoli | Senza catene o cordoli | Con catene o cordoli | | | | 2 Pareti in c.a. |
| 1 Non identificate | <input type="radio"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 Volte senza catene | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 Volte con catene | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 Travi con soletta deformabile (travi in legno con semplice tavolato, travi e volte,...) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 Travi con soletta semirigida (travi in legno con doppio tavolato, travi e tavelloni,...) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6 Travi con soletta rigida (solai di c.a., travi ben collegate a solette di c.a.,...) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| REGOLARITÀ | | | Non Regolare | Regolare |
|------------------------------|-----------------------|--------------------------|--------------------------|--------------------------|
| | | | A | B |
| 1 Forma pianta ed elevazione | <input type="radio"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 Disposizione tamponature | <input type="radio"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| COPERTURA | |
|-----------|---|
| 1 | <input type="radio"/> Spingente pesante |
| 2 | <input type="radio"/> Non spingente pesante |
| 3 | <input type="radio"/> Spingente leggera |
| 4 | <input type="radio"/> Non spingente leggera |

SEZIONE 4 - DANNI AD ELEMENTI STRUTTURALI e provvedimenti di pronto intervento (P.I.) eseguiti

| Livello-estensione Componente strutturale- Danno preesistente | Danno ⁽¹⁾ | | | | | | | | | | Provvedimenti di P.I. eseguiti | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------------|
| | D4 - D5 Gravissimo | | | D2 - D3 Medio Grave | | | D1 Leggero | | | Nullo | Nessuno | Demolizioni | Cercature e/o tiranti | Riparazione | Puntelli | Trasenne e protezione passaggi |
| | > 2/3 | 1/3 - 2/3 | < 1/3 | > 2/3 | 1/3 - 2/3 | < 1/3 | > 2/3 | 1/3 - 2/3 | < 1/3 | | | | | | | |
| 1 Strutture verticali | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 Solai | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 Scale | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 Copertura | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 Tamponature - Tramezzi | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6 Danno preesistente | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

(1) - Di ogni livello di danno indicare l'estensione solo se esso è presente. Se l'oggetto indicato nella riga non è danneggiato, campire Nullo.

SEZIONE 5 - DANNI AD ELEMENTI NON STRUTTURALI e provvedimenti di pronto intervento (P.I.) eseguiti

| Tipo di danno | Presenza Danno | Provvedimenti di P.I. eseguiti | | | | | |
|--|--------------------------|--------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------------|
| | | Nessuno | Rimozione | Puntelli | Riparazione | Divieto di accesso | Trasenne e protezione passaggi |
| 1 Distacco intonaci, rivestimenti, controsoffitti, ... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 Caduta tegole, comignoli, canne fumarie, ... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 Caduta cornicioni, parapetti, ... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 Caduta altri oggetti interni o esterni | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 Danno alla rete idrica, fognaria o termoidraulica | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6 Danno alla rete elettrica o del gas | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

SEZIONE 6 - Pericolo ESTERNO indotto da altre costruzioni, reti, versanti e provvedimenti di pronto intervento (P.I.) eseguiti

| Causa | Pericolo su: | | | | Provvedimenti di P.I. eseguiti | | |
|--|-----------------------|--------------------------|--------------------------|--------------------------|--------------------------------|--------------------------|--------------------------|
| | Assente | Edificio | Vie d'accesso o di fuga | Vie interne | Nessuno | Divieto di accesso | Barriere protettive |
| | | A | B | C | | | |
| 1 Crolli o caduta oggetti da edifici adiacenti | <input type="radio"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 Collasso di reti di distribuzione | <input type="radio"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 Crolli da versanti incombenti | <input type="radio"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

SEZIONE 7 - TERRENO E FONDAZIONI

| Morfologia del sito | | | | Dissesti alle fondazioni | | | |
|--------------------------------|--------------------------------------|--|---------------------------------|---------------------------------|--|--|--------------------------------------|
| 1 <input type="radio"/> Cresta | 2 <input type="radio"/> Pendio forte | 3 <input type="radio"/> Pendio leggero | 4 <input type="radio"/> Pianura | A <input type="radio"/> Assenti | B <input type="radio"/> Generati dal sisma | C <input type="radio"/> Acuiti dal sisma | D <input type="radio"/> Preesistenti |

EARTHQUAKE



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6/10/83

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COMITATO CENTRALE PEI DANNEGGIATI DELL' ISOLA D' ISCHIA

*SCHEDA di dichiarazione dei danni sofferti nei beni Immobili
pel terremoto del 28 luglio 1883*



Comune di *Scarmicciola*

Cognome e Nome del dichiarante ~~Scarmicciola~~ *Antonio fu Gio Vrett.*

Attuale domicilio *Scarmicciola*

AVVERTENZA

La presente Scheda, munita delle attestazioni del Sindaco, richiamate qui entro in calce,
sarà trasmessa al Prefetto Presidente del Comitato Centrale.

Juny 6334-

EARTHQUAKE

A. Pei danni cagionati ai fabbricati

| | DIMANDA | RISPOSTA |
|---|---|---|
| 1 | Cognome, nome, paternità ed età del dichiarante. | Antonio Antonio fa Gio Ratto d'anni 53 |
| 2 | Contrada e numero civico del fabbricato danneggiato. | Casa Ummella n° 11 |
| 3 | Natura e destinazione del fabbricato e suoi accessori. | Casa abitazione - e casa di nuova costruzione (1) |
| 4 | Numero dei piani vani | 1 piano 3 |
| 5 | Regione, Sezione o frazione del fabbricato e numero di mappa. | Casa Ummella - n° 26 - 12 |
| 6 | Numero dei vani rovinati per ciascun piano. pericolanti | da una - per due mura intiere vani 6. |
| 7 | Intestazione del fabbricato nei registri catastali. | Casalegna Antonio fa Gio Ratto |
| 8 | dichiarato accertato dall'Agenzia delle imp. Idem. dalla Commis. locale. Idem. dalla Provinciale | L. 48. imp. |
| 9 | Indennità che si richiede dal proprietario. | L. 800 per la casa intiera in parte per lo stabilimento L. 8000 e L. 2000 per la casa nuova ecc. Addì 23 Ottobre 1883 totale L. 10800 |

(1) Casa di nuova costruzione.
L. 8000 per la casa intiera, e L. 2000 per la casa nuova ecc.
Il sottoscritto Sindaco del Comune di Casamassima attesta la verità delle indicazioni esposte ai numeri 2, 3, 4 e 6 della presente Scheda A.

Casamassima addì 27 Ottobre 1883.

Firma del dichiarante X *Antonio Ratto*

Il sottoscritto Sindaco del Comune di Casamassima attesta la verità delle indicazioni esposte ai numeri 2, 3, 4 e 6 della presente Scheda A.

Casamassima addì 27 Ottobre 1883.

Il Sindaco *Luigi Capagna Festa*

B. Pei danni cagionati ai fondi rustici

| | DIMANDA | RISPOSTA |
|---|---|---|
| 1 | Denominazione del fondo, e regione, sezione o frazione in cui è situato. | Casa Casalegna - Reg. Casalegna Reto Casalegna |
| 2 | Numero di mappa e reddito imponibile. | L. 184 - A. 73 e 19-11. L. 9. 68 |
| 3 | Intestazione del fondo nei registri catastali. | Casalegna Antonio fa Gio Ratto |
| 4 | Se il dichiarante è proprietario assoluto, proprietario diretto o utilista del fondo, se usufruttuario, se affittuario o mezzadro. | proprietario assoluto |
| 5 | Numero di metri lineari di muro di sostegno o di cinta Ammontare del danno | metri 50 abbattuti L. 250 |
| 6 | Metri quadrati del terreno coperto dalle macerie a) boschivo b) seminario c) vigneto d) frutteto e) colture diverse Ammontare del danno | Non mi ha coperto di anche due metri quadrati per la lunghezza di 50 metri L. 250 |

Addì 23 Ottobre 1883

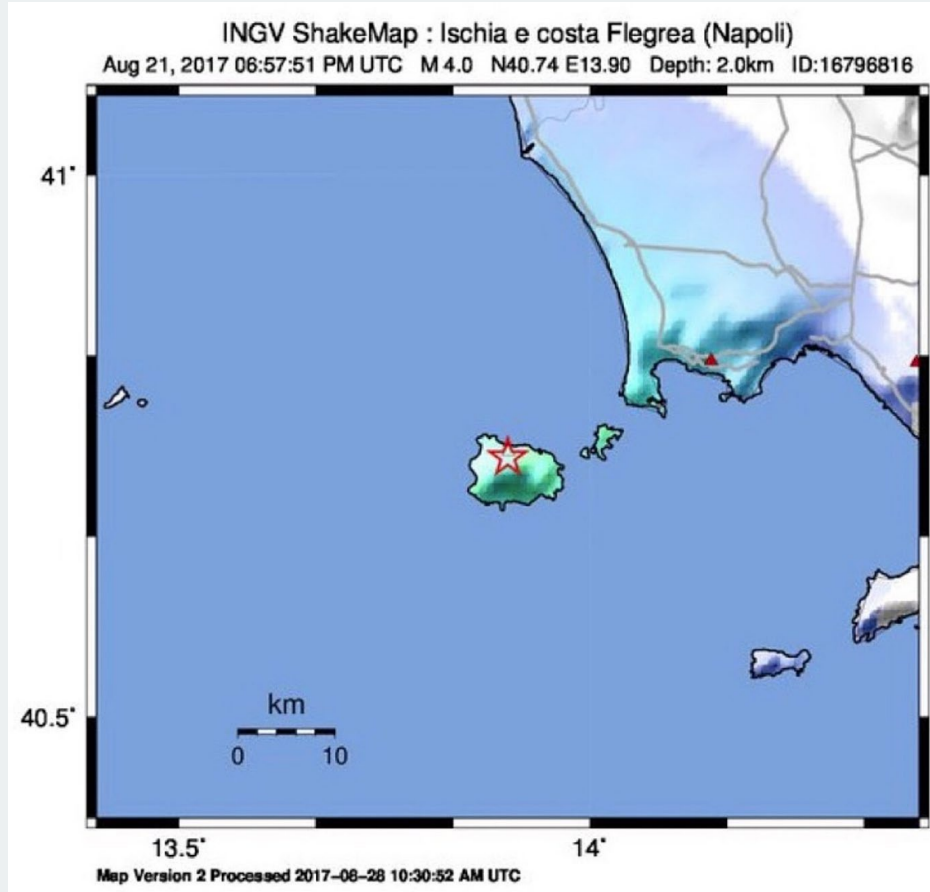
Firma del dichiarante X *Antonio Ratto*

Il sottoscritto Sindaco del Comune di Casamassima attesta la verità delle indicazioni esposte ai numeri 1 a 4 della presente Scheda B.

Casamassima addì 27 Ottobre 1883.

Il Sindaco *Luigi Capagna Festa*

| | Totale n. AeDES | Nulle e/o senza esito | Schede AeDES valide | Edifici “Agibili” (A) | Edifici “Inagibili” (B/BF, C/CF, E/EF) |
|-----------------|--------------------|--------------------------|------------------------|--------------------------|---|
| Casamicciola T. | 1369 | -119 | 1250 | -495 | 755 |
| Lacco Ameno | 589 | 0 | 589 | -225 | 364 |
| Forio | 88 | -17 | 71 | -19 | 52 |
| TOTALE | 2046 | -136 | 1910 | -739 | 1171 |



EARTH QUAKE

SUMMARY TABLE OF AEDES FILES WITH INHABITABILITY RESULTS AS OF 31.12.2024

| | TOTALE | COMUNE DI RIFERIMENTO | | |
|--|-------------|-----------------------|-------------|-------|
| | | Casamicciola Terme | Lacco Ameno | Forio |
| SCHEDE AEDES con esito di INAGIBILITA' | 1171 | 755 | 364 | 52 |
| REVOCHE ordinanze di inagibilità da parte dei comuni <i>(a seguito di riparazione autonoma da parte dei proprietari senza contributo pubblico)</i> | -309 | -115 | -193 | -1 |
| REVOCHE ordinanze di inagibilità da parte dei comuni <i>(a seguito di riparazione con contributo pubblico o di delocalizzazione)</i> | -45 | -36 | -8 | -1 |
| RINUNCIA al contributo ricostruzione in funzione di sisma bonus | -7 | -6 | -1 | 0 |
| TOTALE SCHEDE AEDES con esito di INAGIBILITA' | 810 | 598 | 162 | 50 |

EARTHQ UAKE

| LISTS (FORMERLY SCOPE 476/2017) | INTERNA L NO. | TOTAL AMOUNTS € |
|------------------------------------|------------------|---------------------|
| List B Emergency Funds | 18 | 3,034,711.98 |
| List C - Urgent | 18 | 5,567,803.29 |
| List D - Churches | 17 | 1,000,000.00 |



APPOINTMENT OF COMMISSIONER CARLO SCHILARDI 8 AUGUST 2018 DECREE

LAW NO. 109 OF 28 SEPTEMBER 2018

OFFICE ACTIVITIES BEGAN NOVEMBER 2018 EMERGENCY

ENDED APRIL 2019

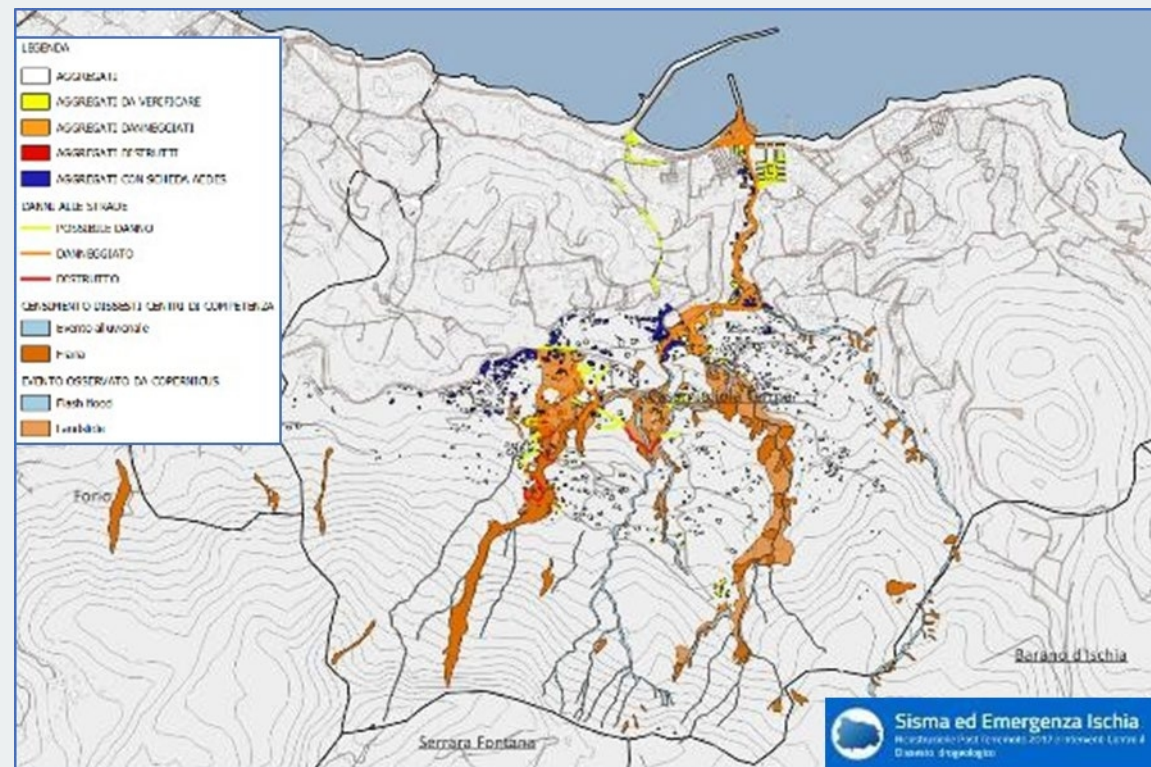
MAIN ACTIVITIES:

- technical support during the termination of the emergency phase in relation to activities aimed at completing the emergency phase interventions pursuant to OCDPC 476/2017
- preparation of ordinances
- seismic microzonation

- identification of priorities for the definition of amnesty procedures to be implemented
- drafting of technical-descriptive sheets for each building, including those subject to inspection
- assessment of damage and definition of initial requirements
- Implementation of data to be entered into the GIS application
- risk mapping
- preliminary investigation for the granting and disbursement of private reconstruction subsidies
- public reconstruction activities
- administrative activities

LANDSLIDE

On November 26, 2022, at around 5 a.m., following torrential rains (126 mm in 6 hours, with peaks of 51 mm per hour) that had fallen on the island of Ischia in the hours immediately preceding, several portions of the ridges of Mount Epomeo broke away.



The damage affected the entire island, with the greatest concentration in the municipality of Casamicciola Terme, and also affected the road network and infrastructure.

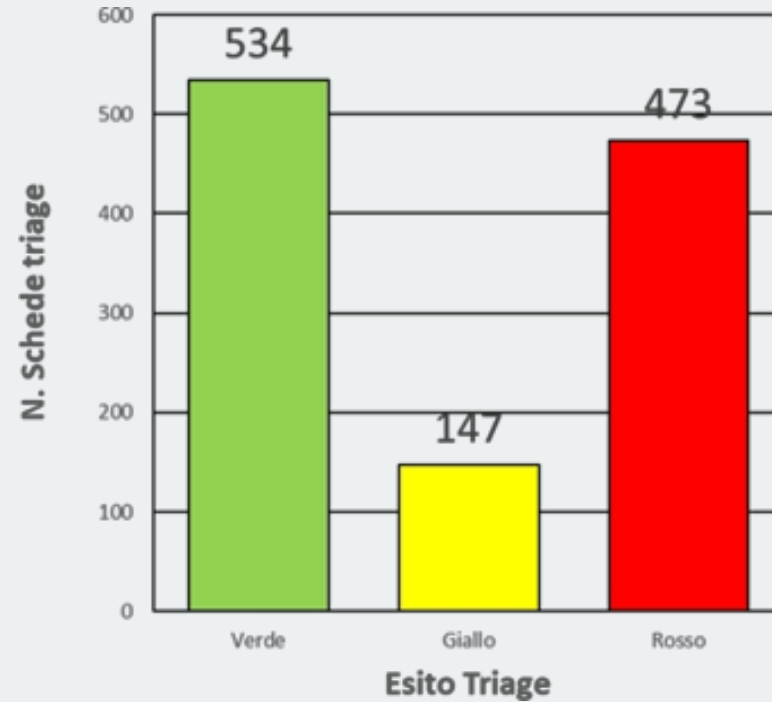
With the resolution of the Council of Ministers of November 27, 2022, a state of emergency was declared as a result of the exceptional weather events that occurred in the municipality of Casamicciola.

By Order of the Head of the Civil Protection Department No. 948 of November 30, 2022, the Government's Special Commissioner for reconstruction in the areas of Ischia affected by the earthquakes that occurred on August 21, 2017, was appointed Emergency Commissioner.

Immediately after the event, the National Fire Brigade took action to assess the critical conditions of buildings through rapid inspections, known as 'quick triage'. During the inspections, the operator assesses the critical conditions using a uniform metric and a guided assessment protocol and is required to fill out a quick triage form, which provides a quick overview of the condition of the building analyzed based on pre-coded indicators. Depending on the severity of the situations identified and the different needs and types of treatment required, the buildings are assigned a green, yellow, or red color. In detail

- red indicates that there is an immediate risk associated with entering, using, or occupying the building under analysis, linked either to a hazardous condition arising from the building itself or to external causes
- Yellow indicates that there are no grounds for defining the situation as unsafe, but the damage observed excludes the possibility of occupying the building without restrictions.
- Green indicates that the damage present does not constitute a significant safety risk but does not imply that it can be ignored or that no action is necessary.

The National Fire Department compiled 1,154 reports following the quick triage, assigning 534 green, 147 yellow, and 473 red colors, as shown in the chart below.



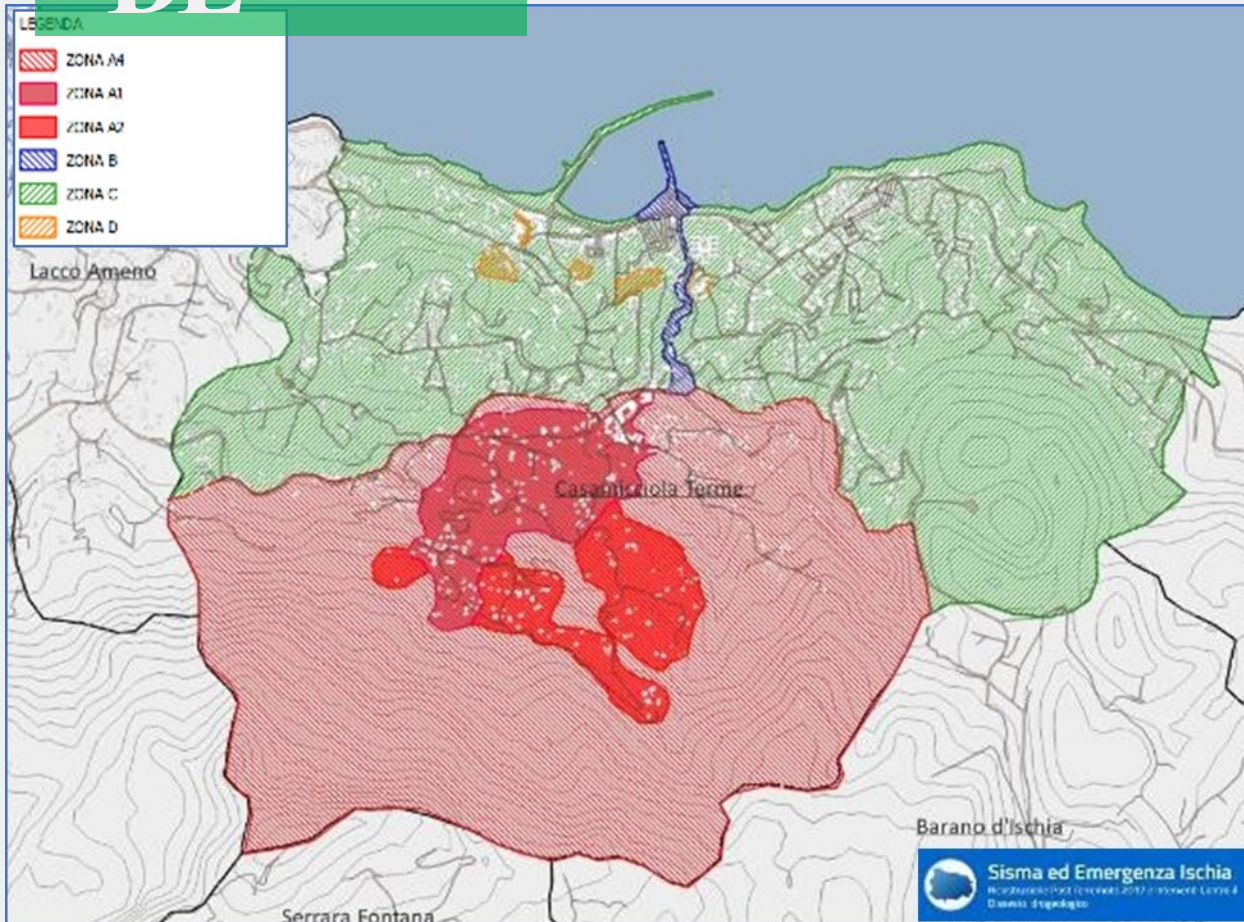
LANDSLIDE

Following the assessment by the National Fire Brigade, the Civil Protection Service of the Campania Region, and the Department of Civil Protection, the Campania Region and the Department of Civil Protection (DPC) asked the Competence Centers (CdC) of the National Civil Protection Service (SNPC) and the Campania technical-scientific community to collaborate with the Commissioner in order to define the conditions of geomorphological, hydrological, and hydraulic hazards in the areas most affected by the landslides and floods of November 26, 2022, with particular reference—though not exclusively—to the territory of the municipality of Casamicciola Terme.

The analysis and available knowledge have made it possible to divide the territory of the Municipality of Casamicciola Terme into four areas characterized by different levels of danger, as established by the Director General for Public Works and Civil Protection of the Campania Region, appointed as the implementing body by Article 1, paragraph 1, of O.C.D.P.C. No. 951. The zoning is indicated in the Report on the 'Initial definition of the risk level of the municipality of Casamicciola Terme (NA) affected by the landslides and flooding of 26 November 2022' of 23 December 2022, and in the subsequent 'Addendum' of 28 December 2022.

LANDSLIDE

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Specifically, the areas identified are:

- Zone A1: area directly affected by the landslide and with very high hydrogeological risk even in the absence of rainfall;
- Zone A2: area characterized by the presence of destroyed buildings, or in any case affected by the landslide and with a very high hydrogeological risk;
- Zone A3: area characterized by the presence of buildings previously rendered unusable by the earthquake of August 21, 2017, and with a very high hydrogeological risk;
- Zone A4: area characterized by a very high risk level, with specific measures proposed depending on the civil protection alert level;
- Zone B: area in which the previous hazard conditions have been locally aggravated by the changed conditions resulting from the event of November 26, 2022;
- Zone C: area with unchanged hazard conditions compared to the ex ante situation, except for specific situations of instability;
- Zone D: area with a high and confirmed level of danger due to the risk identified in the 'quick triage' carried out by the Fire Department.

iglio dei Ministri

truzione, di assistenza alla popolazione e di ripresa economica

nel comune dell'Isola d'Ischia

Once the zoning phase was completed, the Commissioner launched a campaign of inspections of buildings in the areas of the municipality of Casamicciola Terme, identified by the letters A, B, and D, as identified in the Report on the "Initial definition of the hazard level of the territory of the municipality of Casamicciola Terme (NA) affected by the landslides and floods of November 26, 2022" dated December 23, 2022, and the "Addendum" dated December 28, 2022.

This campaign was necessary to assess the damage to the buildings affected by the event.

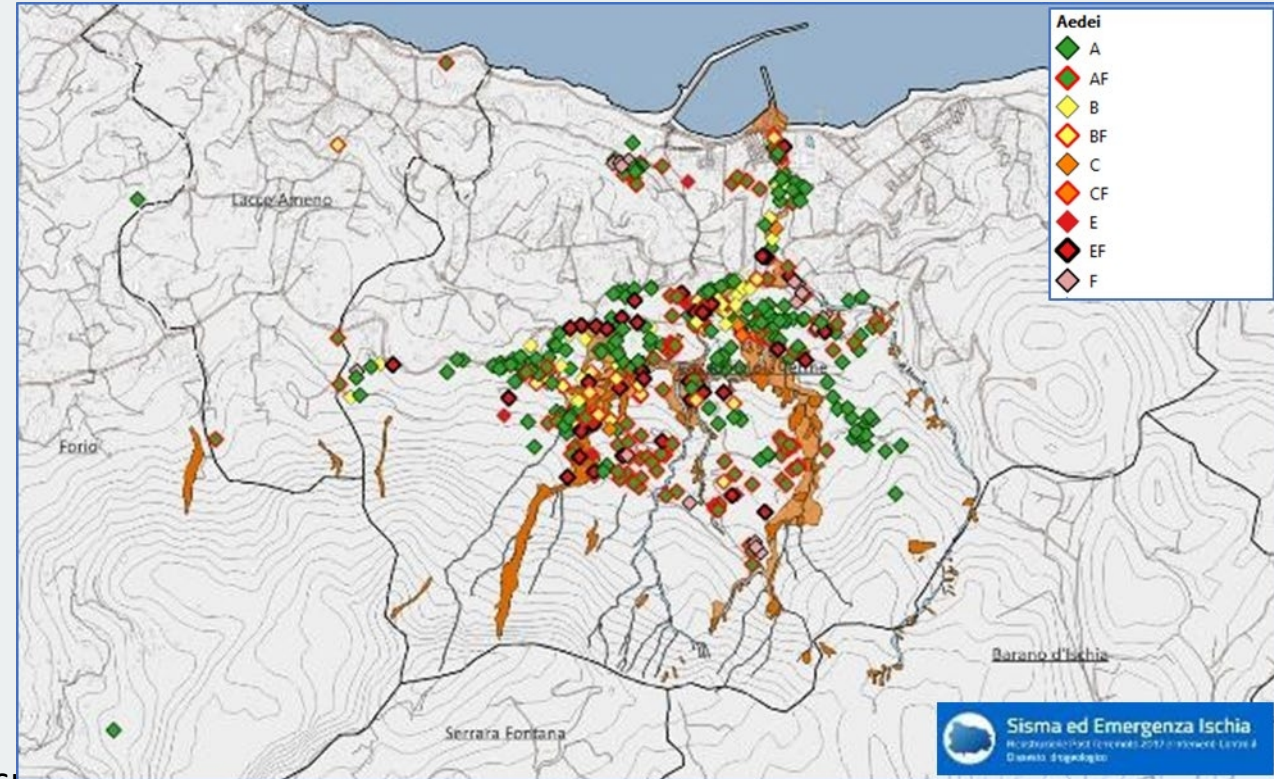
To support technicians in assessing the condition of buildings, a hydrogeological emergency form, called "AeDEI Ischia 2023 form," was prepared in collaboration with the National Department of Civil Protection and subsequently adopted by the Delegated Commissioner with Order No. 7 of February 24, 2023, for the assessment of damage.

The surveys carried out using the AeDEI form made it possible to assess whether the structural, functional, and sanitary conditions of the building had suffered (or not suffered) significant damage compared to the pre-event state, such as to prevent its use. All data collected using the AeDEI Ischia 2023 form was stored on the Lizmap platform.

LANDSLIDE

The first phase of the inspections for the compilation of the AeDEI forms took place between the end of February and the end of March 2023, following the training of the technicians responsible for assessing the buildings' suitability for use.

At the same time as the survey was carried out, the data was entered on the aforementioned digital platform, digitizing approximately 567 "AeDEI Ischia 2023" forms, 562 of which were from the municipality of Casamicciola Terme, complete with results and all the necessary information. The analysis showed that 80 relate to buildings directly affected by the landslide of November 26, 2022, while 482 relate to buildings not directly affected but involved in the passage of mud or debris flows.



As with the established AeDES procedure used following seismic events, the main objective of the inspections for the AeDEI forms is to determine the structural integrity of each unit, together with the external risk associated with the area in which it is located, where hydraulic and/or hydrogeological phenomena may occur, in order to safeguard public and private safety, through the initiation and continuation of initial safety measures and damage restoration.

The data sheets with the information gathered during the AeDEI inspections carried out in this first phase were sent to the municipalities, in a concise and easily accessible format, both to institutions and citizens, using the ArcGIS web application, providing a useful tool for verifying the safety and usability of buildings, allowing mayors to take the necessary measures to safeguard public and private safety, i.e., to initiate and continue damage restoration and initial safety measures.

At the same time as the conclusion of the first phase of comprehensive surveying, the Commissioner appointed the surveying of buildings not surveyed in the first inspection campaign, used for economic and productive activities that had submitted, as required by Ordinance No. 4 of December 30, 2022, the C1 form 'Survey of damage suffered and request for contribution for the immediate resumption of economic and productive activities' (Annex 7 to Order No. 4 of December 30, 2022).

This additional reconnaissance phase began on April 27, 2023, and ended on June 28, 2023, involving a total of 18 production activities, 13 of which are located in the municipality of Casamicciola Terme and the remaining 5 in the municipality of Serrara Fontana, bringing the total number of damage surveys carried out on the island to 585; In accordance with the first phase of the survey, the relevant survey reports were sent to the municipalities concerned with the aim of providing useful information for the protection of public and private safety.

Ordinance No. 12 of May 26, 2023, Art. 1, paragraph 5: "buildings located in the re-parameterized area, for which the owners, possessors, and holders have refused to allow inspections by the teams activated by the Department of Civil Protection, for the purposes of this ordinance, shall be considered unfit for use until they agree to allow access for the preparation of the AEDEI report."

Numerous citizens have submitted further requests for damage assessment for their buildings, which has been followed by a further campaign of inspections.

Order no. 16 of December 17, 2023, art. 4 "Deadlines for requests and carrying out AeDEI inspections," set December 31, 2023, as the deadline for citizens and business owners to submit requests for inspections. In addition, it was established that the relevant inspections, in addition to those reviewing the files not assessed in the first inspection campaign, would be completed by January 15, 2024. This third phase allowed for the assessment of a further 136 structural units, setting the total damage surveys at a final number of 721 usability outcomes.

The continued submission of inspection requests by citizens beyond the deadline set by the aforementioned order prompted the Commissioner to order a further extension of the deadline, setting a final date of August 31, 2024, as provided for in Article 5, paragraph 1, of Order No. 20 of July 11, 2024. This fourth phase made it possible to process the additional 29 requests received by the deadline from citizens, as well as two requests for review of the occupancy status assigned by previous inspections, drawing up an additional 29 AeDEI occupancy reports, thus bringing the total number of damage assessments to 750 occupancy reports.

Following the conclusion of the surveys required by Ordinance No. 20 of July 11, 2024, the Delegated Commissioner, with note prot. No. 2233U/CD/ISCHIA of October 18, 2024, informed the Head of the Civil Protection Department of the presence of buildings located in areas where the hydrogeological risk cannot be mitigated or requires unsustainable costs, also highlighting that for many of these buildings, relocation was already planned in the Campania Region's Reconstruction Plan (PdRI) proposal adopted by DGRC No. 412 of July 31, 2024. The Commissioner therefore asked the Head of the Civil Protection Department for the possibility of using the AeDEI (Update of Emergencies and Hydrogeological Building Damage) procedure to carry out a survey of buildings not already inspected during previous campaigns conducted following the catastrophic events of November 26, 2022. If approved, he requested the support of technical experts from the Department of Civil Protection (DPC). In a subsequent note, ref. no. 58501 of November 15, 2024, the Head of the Department of Civil Protection responded positively to the request of the Delegated Commissioner, also making his technical experts fully available to provide support.

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The approaching end of the state of emergency prompted the Commissioner to issue Order No. 24 of December 30, 2024, in order to reopen the deadline for requests for inspections by citizens and business owners with AeDEI procedures already received after the deadlines set out in Order No. 20/2024, as well as for any further requests that may be received by January 31, 2025, as provided for in Article 4, paragraph 1 of Order 24/2024, and whose review must be completed by March 15, 2025. Of the 11 requests received within the deadline, based on the surveys carried out in the field, it was possible to draw up 8 AeDEI reports, of which 2 with an A result, 4 with an AF result, and 2 not assessable as they were shacks.

The surveys carried out in accordance with Delegated Commissioner Ordinances No. 23/2024 and 24/2024 brought the total number of damage surveys to 780 usability results.

All the results of the surveys carried out were implemented on the Erikus-ric territorial information system and on the dedicated Liz-Map webgis platform, in order to allow analytical, statistical, and graphical analysis of the level of damage to the buildings.

Below is a representation, in both tabular and graphical format, of the usability results derived from the AeDEI damage assessment forms, broken down by municipality.

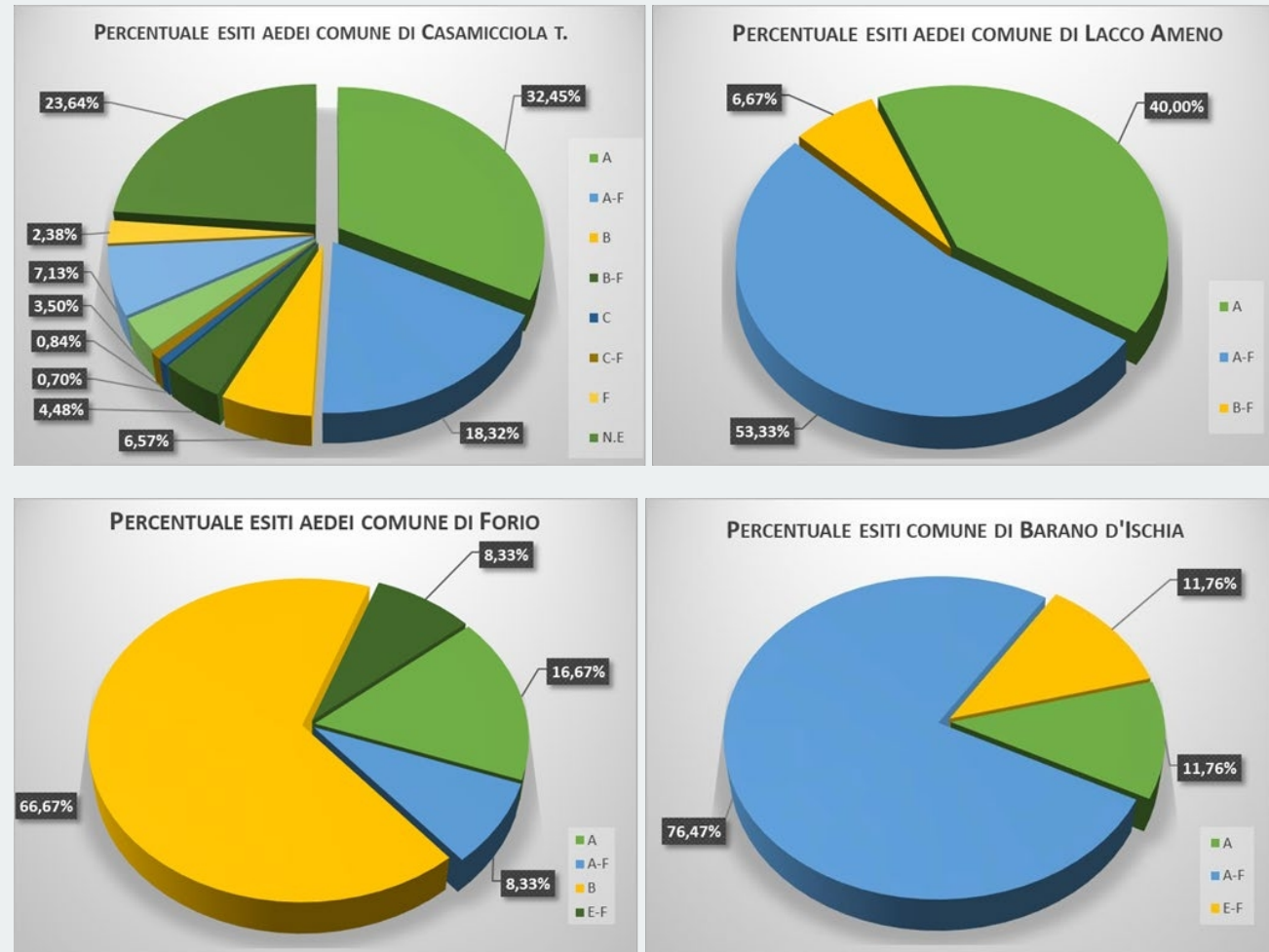


| Usability outcome | Municipality | | | | | | Total |
|------------------------|--------------------|-------------|-------|-----------------|-----------------|--------|-------|
| | Casamicciola Terme | Lacco Ameno | Forio | Barano d'Ischia | Serrara Fontana | Ischia | |
| A | 232 | 7 | 2 | 2 | 3 | - | 246 |
| A-F | 131 | 13 | 1 | 13 | 2 | 1 | 161 |
| B | 47 | - | 8 | - | - | - | 55 |
| B-F | 32 | 1 | - | - | 1 | 3 | 36 |
| C | 5 | - | - | - | - | - | 5 |
| C-F | 6 | - | - | - | 1 | - | 7 |
| D | - | - | - | - | - | - | - |
| D-F | - | - | - | - | - | - | - |
| E | 25 | - | - | - | - | - | 25 |
| E-F | 51 | - | 1 | 2 | - | - | 54 |
| F | 17 | - | - | - | - | - | 17 |
| N.E. (unsuccessful) | 169 | 4 | - | - | - | - | 173 |
| Total per municipality | 715 | 25 | 12 | 17 | 7 | 4 | 780 |

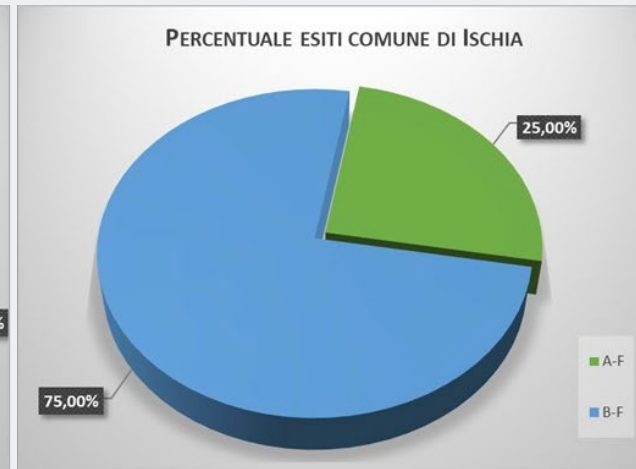
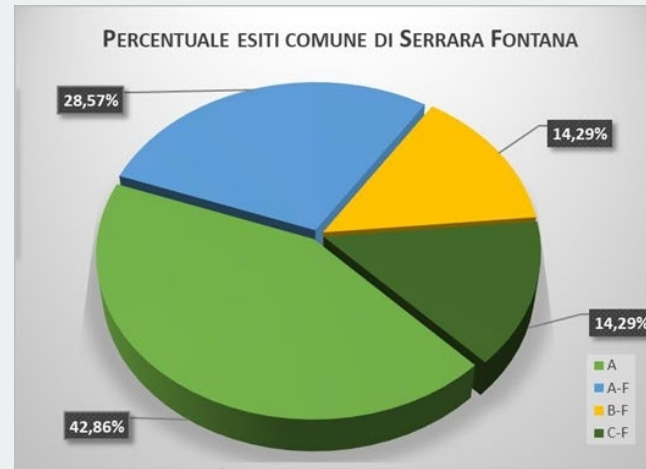
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As with the established AeDES procedure used following seismic events, a final assessment was assigned to the various degrees of damage detected, as described below:

Total and territorially competent graphical representation of the results of usability in percentage terms:



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THANK YOU FOR YOUR ATTENTION

Vincenzo Albanese

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