



Representation and dissemination of scientific information: the case of the 2017, June 12, Mw 6.3 Lesvos Earthquake (Northeastern Aegean Sea)

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On June 12, 2017 (12:28 GMT) a strong earthquake struck Lesvos Island (Northeastern Aegean, Greece). Its southeastern part suffered the most in its natural environment, buildings and infrastructures.

The data acquired after performing a rapid field macroseismic reconnaissance comprising building-by-building inspection and mapping by using UAS and GIS online applications. All data were collected and saved with maximum accuracy for further processing and analysis and were also freely accessible to all agencies competent in civil protection and disaster management. Then, this data went public through the social networks and media during the post-disaster phase.

Shortly after the first analysis and interpretation, preliminary scientific reports were published online in seismological centers and earth science related blogs and scientific results were submitted to scientific journals in order to be considered for publication.

A set of scientific data acquired in the field and the preliminary scientific results obtained by the aforementioned research has been further presented by using the ESRI Story Map web templates (<https://storymaps.arcgis.com/en/>). Story Maps give the researchers the possibility to authoritative maps with narrative text, images, and multimedia content to help visualize information, and new functionality is being added and improved regularly.

In the case of the 2017 Lesvos earthquake, a story map has been created and is available in both Greek and English and accessible at the following link: <https://goo.gl/hWQ9oP>. Various scientific data, maps and videos were combined: (a) earthquake parameters, (b) earthquake impact on humans, environment and buildings, (c) results of source parameter determination, coulomb stress analysis and application of differential interferometry techniques, (d) geological setting of the earthquake-affected area, (e) data on historical and recent seismicity of Lesvos, (f) information about the University of Athens, the Environmental Disaster Crisis Management Strategies (EDCM) post-graduate studies program supporting the field work of the scientific research and (g) the members of the scientific team.

The 2017 Lesvos earthquake story map comprises tabs entitled (a) general info, (b) seismic sequence, (c) geological setting, (d) historic data, (e) earthquake environmental effects, (f) building damage, (g) Vrissa settlement and (h) about (<https://goo.gl/8pDKFP>). All interested users have the opportunity to remain on any given tab for as long as required and navigate freely between them at their pace. Moreover, they have the possibility to expand or hide explanatory legends, quickly switch between slides, open or close pop-up photos and maps, view properties and attributes of selected geometries, view the dominant types of buildings and the earthquake-induced damage classified into 4 categories from slight to very heavy structural damage. This information is regularly updated based on scientific results published by the research team.

As regards the accessibility of this story map, users of smartphones and devices on all systems are able to open, use and share it in social media and beyond.

Creating story maps contributes to the exploitation of scientific knowledge gained by the scientific community and the information of the general public. This aims to the effective communication and cooperation in such an important issue as the prevention and management of earthquake disasters.