Evaluating tsunami risk perception and preparedness of people and institutions in the town of Siracusa, Italy

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The eastern coast of Sicily is characterized by high population density, with three main cities (Messina, Catania and Siracusa) and many other touristic and industrial poles. At the same time, many possible sources of hazard exist in the area, from the highest volcano in Europe (Mt. Etna) to the several faults existing both inland and offshore in the Ionian Sea, and to the Hyblaean-Malta Escarpment running parallel to the coast close to the shoreline, incised by several scars and canyons. Seismic and tsunami catalogues account for such an intense activity, with some major events causing several damages and casualties, the main of which being the 1693 (Augusta) and 1908 (Messina) earthquakes and consequent tsunami.

For such reasons the area of Siracusa and its surroundings was chosen as one of the test sites of the EU Project ASTARTE - Assessment, STrategy And Risk Reduction for Tsunamis in Europe (Grant 603839, 7th FP, ENV.2013.6.4-3), investigating many aspects of tsunami hazard, vulnerability and risk along the coasts of Europe. One of the main aims of the project is to assess the perception and preparedness of people and local authorities to natural hazards, with particular attention to tsunamis, in the test sites. This task was performed by realizing a questionnaire, subdivided into some sections, each one estimating a particular aspect: from the relation of the interviewed person with the site, to his/her perception of the risk and reaction in case of alert, to the knowledge of warning systems and evacuation procedures. The questions were submitted to local people and tourists in the town center of Siracusa, and also provided to delegates of local authorities, such as municipality and Civil Protection Department.

The questionnaire results show a very low level of awareness of the risk connected to tsunamis, which is surprising if one considers the relatively recent catastrophic event of Messina, involving the whole eastern coast of Sicily. On the other hand, people expect a devastating tsunami to affect the town in the future. In general, a poor knowledge of the natural phenomenon can be noticed, and a general mistrust in public authorities is found.