

Interactive comment on “The Volcanoes of Naples: how effectively mitigating the highest volcanic risk in the World?” by Giuseppe De Natale et al.

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Scientific Significance: 1 (excellent) Does the manuscript represent a substantial contribution to the understanding of natural hazards and their consequences (new concepts, ideas, methods, or data)? YES

Scientific Quality: 1 (excellent) Are the scientific and/or technical approaches and the applied methods valid? Are the results discussed in an appropriate and balanced way (clarity of concepts and discussion, consideration of related work, including appropriate references)? YES

Presentation Quality: 1 (excellent) Are the scientific data, results and conclusions presented in a clear, concise, and well-structured way (number and quality of fig-

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ures/tables, appropriate use of technical and English language, simplicity of the language? YES

Suggestion: publish with very minor revision

Review of the manuscript “ The Volcanoes of Naples: how effectively mitigating the highest volcanic risk in the World? “ by Giuseppe De Natale, Claudia Troise, Renato Somma.

The paper presents a clear review of the heavy problem of volcanic risk mitigation in the Neapolitan area. The paper starts recalling the main problems actually involved in the eruption forecast, which, according to the most recent literature, has a very low percentage of successes. Starting from such consideration, the authors analyse the main features, eruptive history and hazard of each one of the three Neapolitan volcanoes, and then proceeds to analyse the main problems to design an effective Emergency Plan, which is really feasible from a logistic, economic and social point of view. While describing the optimal features of a realistic Emergency Plan, the authors clearly put in evidence the limits and problems of the present Emergency Plans existing for Vesuvius and Campi Flegrei. The resulting framework is an innovative one, very useful not only for this extremely populated area, but also for any other populated one, prone to volcanic risk in the World.

The paper is surely of high interest for the journal, and for the volcanological research applied to risk mitigation. It is generally well written (I don't make any language correction, because not of English mother tongue), with all the main concepts well explained. The conclusions are well supported by data, literature and volcanological considerations. Figures are all necessary and well understandable.

I surely support publication, almost in the present form, and give some suggestions for minor revisions, the authors should consider to include: 1) the authors should include, in the references about the discussion on the Vesuvius emergency plans, the paper by Rolandi (2010); 2) Regarding fig.7, the authors should mention the paper by Bellucci

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et al. (2006) which, at my knowledge, has been the first one to propose the depicted behaviour for the secular ground movements; 3) You could perhaps spend some more lines explaining the benefits of a 'progressive evacuation' approach, which I find absolutely correct as opposite to a 'giant' red zone to suddenly evacuate in few days. 4) You could explain a little more the model for background seismicity at Vesuvius, where you quote De Natale et al., 2000.

Best Regards

Giuseppe Rolandi

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