

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

Giuseppe De Natale et al.

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Answers to the Reviewer 2 (Listed as SC3: Giuseppe Rolandi)

We thank the reviewer for his helpful suggestions; we are going here to answer point by point:

1) The authors should include, in the references about the discussion on the Vesuvius emergency plans, the paper by Rolandi (2010);

Answer: we agree, and apologise we did not before. However, the reference has been added in the revised version of the manuscript.

2) Regarding fig.7, the authors should mention the paper by Bellucci et al. (2006)

C1

which, at my knowledge, has been the first one to propose the depicted behaviour for the secular ground movements;

Answer: we agree, we missed to mention it in the first version, but we added in the revised one.

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;

Answer: yes, we agree this is a very crucial point, because an extreme enlargement of the red zone, while giving a false feeling of safety, makes actually unlikely, or else impossible, to decide the evacuation. This is because more severe are the consequences of a false alarm (and unnecessarily evacuating 600,000-700,000 people is a really catastrophic outcome), more evidence for a really impending eruption the decision-makers (politicians) will need to decide an evacuation. But waiting more and more evidence from precursors, given the implicit, large uncertainty of their significance, can easily prove fatal. We have stressed more, in the revised version, the importance of a progressive evacuation, starting from smaller, more critical areas (just as it was made in the Pozzuoli town evacuation in 1984). Thank you for this important suggestion.

4) You could explain a little more the model for background seismicity at Vesuvius, where you quote De Natale et al., 2000;

Answer: we agree, it s an important point, and we discussed it in more detail in the revised version of the manuscript.

We hope to have now satisfied all the reviewer concerns.

Best Regards

Giuseppe De Natale, Claudia Troise, Renato Somma

Please also note the supplement to this comment:

C2

<https://www.nat-hazards-earth-syst-sci-discuss.net/nhess-2020-51/nhess-2020-51-AC4-supplement.pdf>

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2020-51>, 2020.