Dear Dr Douglas,

We thank you for your comments and suggestions. Please find our responses below. Our response is in red.

1. "There are many GMPEs available in the literature (see Douglas (2011)for a review)." -> Douglas (2011) does not provide a "review" but simply a compendium of published models. If you wish to reference this compendium I suggest you cite my website: www.gmpe.org.uk, which has the latest version, rather than this relatively old report. If you wished to cite a review article you could cite: Douglas and Edwards (EarthScience Reviews, 2016, doi: 10.1016/j.earscirev.2016.07.005).
- Thank you for the comment. We have updated the reference to the ones suggested

2. "We also take into account the local site effects by using the Vs30 values - shear wave velocity in the top 30 m of soil,estimated from a microzonation study by Bonnefoy-Claudet et al. (2009) (Fig. S4)." -> The location considered for your analysis is in a sedimentary basin with relatively soft soils (∼300m/s according to S4), which are probably also deep (»50m). Therefore, only using Vs30 to account for the effects of these sediments is probably underestimating the soil amplification as it generally ignores basin effects (e.g. Joyner, Bulletin of the Seismological Society of America, 2000). Some GMPEs roughly account for these effects (but not the ones you have chosen for this analysis). It may be worth checking the impact of accounting for these effects.
- Thank you for the comment. While in this study we are unable to account for the complexities of basin resonance and topography, we attempt to take into account the basin amplification effect in our ground motion calculations by using the Vs30 velocities - the shear wave velocity in the top 30 m of soil estimated from a microzonation study by Bonnefoy-Claudet et al. (2009). But we have noted that this will still probably underestimate the full basin effects and is a limitation of our study. We have added this to the end of section 3.2.

3. "We find that the fraction of reinforced concrete (RC) buildings in any commune decreases dramatically with the proportion of people living below the poverty line (Fig. 7)" -> Figure 7 shows that the scatter in the data for RC (and other building types) is large. It could be useful to check the statistical significance of the best-fit lines as it may be that the apparent trends are not robust.
- We have included the coefficient of determination values for each of the fitted lines through the building fraction against poverty data. While it is clear that the the scatter in the masonry building data means the fit is poorly constrained. However the correlation for the RC and W buildings is significant, and shows a decreasing trend between the fraction of RC structures with increasing levels of poverty with the opposite trend for W structures.