

Interactive comment on “Soil geohazard mapping for improved asset management of UK local roads” by O. G. Pritchard et al.

Anonymous Referee #1

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This is a worthwhile paper that relates current road surface damage to clay shrinkage under drought conditions and then uses climate projections within a geohazards model to predict the areas likely to be affected in the future. It represents an excellent use of the soil data that has been collected over many years.

If there is one major criticism, it is that the authors have assumed that the damage to the road network was due to shrinkage under dry conditions but as damage could also be caused by swelling of the clays on re-wetting, it would be useful to see the PSMD values for the period under examination (2007–2014).

While I appreciate that you can only work with the data you have, the fact that the assessment of damage is not undertaken for the same road section in successive

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years, could lead to bias in the data. Can the authors show that the CVI assessments of the road network are undertaken in such a way that even though the same section may or may not be evaluated in successive years, there is no bias by CVI assessments being made where damage is suspected and that the rolling programme is sufficiently ‘random’ that an unbiased sample is obtained?

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