Based on the comments from the two reviewers, it is evident that the manuscript is not suitable for publication in the Geoscientific Model Development journal. The reviewers cited that the paper (i) does not fit within the scope of the journal, (ii) has limited innovation, (iii) is poorly written, (iv) has unclear objectives and novelty, (v) comprised erroneous interpretation of the sensitivity indices, (vi) has flaws in the implementation of the global sensitivity analysis, (vii) lacks discussion of results, and (viii) lacks clarity on model calibration. Therefore, I consider this manuscript unsuitable for publication in Geoscientific Model Development. Conclusively, further submission of the revised version of this manuscript is not necessary.