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Interactive comment on "High resolution mapping of combustion processes and implications for CO₂ emissions" by R. Wang et al.

Anonymous Referee #2

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Although the work that is presented in this paper is very interesting and important for the CO_2 modelling community, I think that the authors selected the wrong journal. A large amount of bookkeeping leads to a detailed map op CO_2 emissions (PKU- CO_2). I have very little questions about the validity of the methods used. However, real scientific innovation is difficult to find. The fact that in developing countries energy use differs widely from city to rural areas is interesting. But the application to biosphere inversions is not new:

P Peylin, S Houweling, M C Krol, Karstens, U., denbeck, C. R., Geels, C., Vermeulen, A., et al. (2011). Importance of fossil fuel emission uncertainties over Europe for CO₂ modeling: model intercomparison. Atmospheric Chemistry and Physics.

This article is not even in the reference list. Simply using Carbontracker and some C7457

mathematical manipulation is not enough to give the paper the required scientific depth. I therefore recommend the omission of sections 2.8 and 4.2, and to submit the paper to e.g. GMD, which seems a more proper medium to offer this important work to the user community.

Minor: Caption figure 5: VULVAN should read VULCAN.

Interactive comment on Atmos. Chem. Phys. Discuss., 12, 21211, 2012.