## Response to Lutz Gross, GMD Executive Editor

As outlined in https://www.geoscientific-model-development.net/about/manuscript\_ types.html GMD is expecting that the model code is publicly available through a permanent arrangement. Given the impermanence of email addresses, GMD encourages authors acting as a point of contact for obtaining the code to improve the availability with a more permanent and public arrangement. When copyright or licensing restrictions prevent the public release of model code, or in the cases where there is some other good reason for not allowing public access to the code, authors need to state the reasons for why access is restricted and need to explain how access can be obtained (e.g. signing a license agree or join a consortium).

We have updated the "Code and data availability" section (Page 27, Line 4): "The source code for the site-level YIBs model version 1.0 is available at https://github.com/YIBSO1/YIBS\_site. The GISS ModelE2 source code can be obtained from NASA GISS (https://www.giss.nasa.gov/tools/modelE/). Included as supplemental information are the gridded natural methane fluxes and the numerical model output used to make the figures. Gridded files of natural methane fluxes associated with the Fung et al. (1991) dataset were obtained from NASA GISS (data.giss.nasa.gov/ch4\_fung). Column-averaged methane concentrations from SCIAMACHY were obtained from the University of Bremen (iup.uni-bremen.de/sciamachy/NIR\_NADIR\_WFM\_DOAS/products/). Other data used as model input or for analysis of model output are listed in the references."

## Reference:

Fung, I., John, J., Lerner, J., Matthews, E., Prather, M., Steele, L.P., and Fraser, P.J.: Three-dimensional model synthesis of the global methane cycle, J. Geophys. Res., 96, 13,033-13,065, doi: 10.1029/91JD01247, 1991.