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Atmospheric Chemistry and Physics Discussions

Interactive comment on "Sensitivity studies of oxidative changes in the troposphere in 2100 using the GISS GCM" *by* J. L. Grenfell et al.

J. L. Grenfell et al.

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We thank Dr. Karl for his short comment.

We incorporate his advice into section 3 paragraph 3:

The introduction of agroforests in the tropics with associated fast-growing species favored by e.g. the rubber and timber industries suggests increased isoprene emissions whereas in other regions conversion to pasture land will tend to have the opposite effect; also, industrialisation clearly favours emissions of anthropogenic rather than biogenic hydrocarbons. Climate change effects will also influence growing rates, speciation hence biogenic emissions. The overall effect is unclear (TAR 4.3.3). Ox_Comp chose not to recommend any particular future NMHC distribution. We therefore chose to retain our present-day isoprene distribution. Further details of the assumptions we make in deriving CO from isoprene emissions may be found in Shindell et al. (2001).

The efficiency of conversion of isoprene into CO is uncertain, which should be bourne in mind when we discuss the HCHO response.

Interactive comment on Atmos. Chem. Phys. Discuss., 3, 1805, 2003.

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Interactive Comment