

## ***Interactive comment on “The travel-related carbon dioxide emissions of atmospheric researchers” by A. Stohl***

**A. Stohl**

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I thank O.Tolonen-Kivimäki, H.Tuomenvirta and A.Laaksonen for their comment on my article. It is particularly good to see additional numbers from another institute. Even though the FMI emissions on a per-capita basis are lower, the magnitude is quite comparable to the NILU emissions.

Many of the emission calculators available online in the internet are not well documented and most of them (but not all) calculate CO<sub>2</sub> equivalents, where the climate impacts of emissions of species other than CO<sub>2</sub> are accounted for as well. However, since the efficiency of the radiative forcing of, e.g., O<sub>3</sub> and H<sub>2</sub>O are regionally variable and the lifetime of these species is quite different from that of CO<sub>2</sub>, various assumptions are required to estimate corresponding CO<sub>2</sub> equivalents. I preferred to calculate CO<sub>2</sub> emissions only, which can be calculated more robustly. As mentioned in the pa-

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per, though, the climate impact of the travel is greater than that from CO<sub>2</sub> emissions alone.

I agree that the calculations would be more accurate if the exact itinerary were known for every trip. However, the accuracy improvement would be relatively small, and the required data were simply not available.

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Interactive comment on Atmos. Chem. Phys. Discuss., 8, 7373, 2008.

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8, S2769–S2770, 2008

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