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## **Stratosphere-biosphere links through UV and ozone**

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Quantifying the impact of enhanced UV-B (280-315 nm) radiation on the biosphere is of clear importance to understand the environmental consequences of stratospheric ozone depletion. Of the many effects of increased UV-B on terrestrial ecosystems, several meta-analyses point to an inhibition of biomass accumulation. This inhibition would have several knock-on effects, impacting the carbon cycle, hydrological cycle, dry deposition, and many other atmosphere-biosphere interactions. Such interactions are seldom included in global climate models, meaning that there is no clear indication of the nature and magnitude of the UV-B impact on terrestrial ecosystems.

We are addressing this gap through the use of a global land surface model together with ozone and climate data from chemistry-climate models. This presentation will focus on our initial work, which considers what the impacts might have been had the Montreal Protocol not been adopted (the “world avoided”).