

# CGD Seminar Series

## Planetary Metabolism in the Anthropocene

**Matt Long**

NCAR

**Date:** Tuesday, 1 February 2022

**Time:** 11am – 12pm

*For Zoom information, please contact*

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*For live stream information, visit the*

*CGD Seminar Webpage*

### ABSTRACT

Planetary metabolism comprises the globally-integrated balance between photosynthesis and respiration, both on land and in the ocean. It is evident in the flows of carbon, oxygen and nutrient elements through the Earth system's fluid reservoirs, the atmosphere and ocean. It is mediated by natural and human processes and interconnected with the net radiative balance of the planet. In this talk I will present examples of climate-biosphere interactions in the context of this concept, drawing on a combination of observations and models. I will discuss specific advances in understanding the Earth system and important opportunities for research to support a sustainable future

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