

CO2 Flux WG Summary

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Possible Synthesis Paper Topics

- Identify the knowledge gaps in order to address policy needs
 - Natural carbon cycle effects represent large uncertain piece of carbon budget, opinion piece
- How do we address knowledge gaps as function of resources available
 - Relative importance of remote sensing assets vs ground truthing (in situ type measurements)
 - CO₂ vs CH₄ focus, many new satellites focusing on CH₄ but less CO₂ assets
 - Density of measurements and general dearth of measurements (nothing in Amz, tropics, boreal)
- Tipping points
 - What observations do we need to detect change in critical zones, e.g. arctic/permafrost and tropical forest decline

Group Collaborative Activities

- What we have
 - A lot of one-off products at different time and space scales (hard to synthesize)
 - Lot of U.S. and Europe centric products
 - Fast moving AI products
- Examples of what we need
 - Better communication with policy makers about “common” metrics
 - A comprehensive lateral export of C product that could used *generally* by inverse flux modelers
 - Better more informed use of AI/ML and more communication, provide domain knowledge to AI experts

Contributing to National and International Activities

- SOCCR
 - Start dialogue to facilitate collaborations with leads in order to leverage CMS products towards SOCCR reports
 - Same thing for RECCAP on broader global scales
- Carbon Cycle Science Plan
 - Have discussions w/ leads/authors about how best leverage CMS flux group experience towards laying out priorities for CO₂ flux measurements over next decade