

GEOCARBON Conference

“Towards a Global Carbon Observing System: Progresses and Challenges”

1-2 October 2013, Geneva

AGENDA

1st Day – 1 October 2013

- 9.00 Welcomes by GEO Secretariat Director (B. Ryan)
- 9.15 Welcomes by GEOCARBON Project Coordinator (R. Valentini)
- 9.30 The Global C-budget (P. Ciais)

10.00 *Coffee Break*

10.30 Session 1: Tropical C-budget and hotspots (Chair: M. Gloor)

- 10.30 What's happening to the planet's remaining intact tropical forests? Keynote speech by O. Phillips (University of Leeds)
- 11.00 The GEO Global Forest Observation Initiative (O. Ochiai)
- 11.20 First net annual carbon balances of the Amazon basin from in-situ vertical profile sampling (L. Gatti)
- 11.40 Impacts of land use change on soil organic carbon in the humid tropics (O. van Straaten)
- 12.00 Carbon Losses due to Tropical Forest Fragmentation: A Forgotten Process in the Global Carbon Cycle (K. Brinck)
- 12.20 Discussion

12.40 *Lunch*

13.40 Session 2: In situ observations (Chair: M. Mahecha)

- 13.40 In-Situ Observations: How Local Flux Sites Help to Understand Global Carbon. Keynote speech by H.P. Schmid (Karlsruhe Institute of Technology)
- 14.10 Precision and accuracy of in situ tower based carbon cycle concentration networks required for detection of the effects of extreme climate events on regional carbon cycling (A. Desai)
- 14.30 Urban greenhouse gas observations (J. Ehleringer)
- 14.50 Air-water CO₂ exchange along the Land-Ocean Aquatic Continuum: a regionalized reassessment at global scale (P. Regnier)
- 15.10 Variability of the global ocean carbon sink (1998-2011) (N. Gruber)
- 15.30 Discussion

15.50 *Coffee Break*

16.10 Session 3: Observations from space (Chair: S. Houweling)

- 16.10 What satellites tell us about the global carbon budget. Keynote speech by R.A. Houghton (Woods Hole Research Center)
- 16.40 A new era for measuring global forest properties: the ESA Biomass mission (S. Quegan)
- 17.00 Global monitoring of terrestrial sun-induced chlorophyll fluorescence from space measurements (L. Guanter)
- 17.20 GOSAT and GOSAT-2: Achievements and Future Plan (T. Matsunaga)
- 17.40 The GHG-CCI Project of ESA's Climate Change Initiative: Overview (M. Buchwitz)

18.00 OCO-2: The Next Step in Space-Based CO₂ Measurements (D. Crisp)
18.20 CEOS Strategy for Carbon Observations from Space (D. Wickland)
18.40 Discussion

19.00 Cocktail Reception

2nd Day – 2 October 2013

9.00 Poster Session

10.00 Coffee Break (continuation of the poster session)

10.30 Session 4: Global CH₄ cycle (Chair: P. Bousquet)

10.30 The Changing Global Methane Cycle. Keynote speech by E. Nisbet (University of London)
11.00 Constraining methane emissions in North America by high-resolution inversion of satellite data: from SCIAMACHY to GOSAT and beyond (D. Jacob)
11.20 Monitoring Carbon Budgets in the Arctic: The Value of Long-Term Monitoring and Assimilation Techniques (L. Bruhwiler)
11.40 Variation of global CH₄ emission and concentration during the past century (A. Ghosh)
12.00 A synthesis of the global sources and sinks of methane over the past 3 decades, and implications for future monitoring (S. Houweling)
12.20 Discussion

12.40 Lunch

13.40 Session 5: Model data fusion at global and regional scale (Chair: W. Peters)

13.40 Progress in global and regional inverse modeling using mixing and isotopic ratio. Keynote speech by J.B. Miller (NOAA, Earth Systems Research Laboratory)
14.10 Coupled carbon and water balances of the Australian continent (M. Raupach)
14.30 Ocean-atmosphere CO₂ flux variability estimated from SOCAT pCO₂ observations (C. Roedenbeck)
14.50 FLUXCOM – Towards an ensemble of improved global data-driven products of carbon fluxes (M. Reichstein)
15.10 Progress and challenges towards comprehensive carbon cycle observations and analyses in the United States (K. Davis)
15.30 Global model-data-fusion estimates of ecosystem carbon fluxes (A. Bloom)
15.50 Land and ocean C-fluxes estimated from several CCDAS within the GEOCARBON project (P. Peylin)

16.10 Coffee Break

16.30 Session 6: Carbon and policy (Chair: M. Biasini)

16.30 Policy needs for carbon monitoring systems (R. Duren)
16.50 Building an Integrated, Global Greenhouse Gas Information System (O. Tarasova)
17.10 The Value of a Global Carbon Observing System (M. Macauley)
Three policy-relevant initiatives:
17.30 The International Ocean Carbon Coordination Project – IOCCP (T. Tanhua)
17.40 USG SilvaCarbon Program in support of GEO-GFOI Forest Carbon Monitoring Capacity Building (S. Wilson)
17.50 GlobAllomeTree, an international platform for tree allometric equations (M. Henry)
18.00 Policy recommendation for decision makers (A. Bombelli, all)
18.10 Discussion, wrap up and final remarks

18.30 End of the conference