

Greenhouse gases in the Earth system: setting the agenda to 2030

Monday 22 to Tuesday 23 February 2010

Organisers: Professor Euan Nisbet, Professor Peter Liss FRS, Dr Andrew Manning and Professor Ralph Keeling

DAY 1				DAY 2			
Global budgets and trends		Tracking changes in sources and sinks		Modelling trends and feedbacks		Future perspectives and policy relevance	
Chairs: Ray Weiss and Euan Nisbet		Chairs: Andrew Manning and Ingeborg Levin		Chair: Peter Liss FRS		Chairs: Martin Manning, Kim Holmén, Crispin Tickell and Ron Oxburgh	
09.00	Welcome by Stephen Cox						
09.05	Martin Manning The growing priority for understanding greenhouse gases in a policy perspective	13.30	Professor Steven Wofsy The critical role of fine grained measurements in determining transport, sources and sinks of climatically important atmospheric species	09.00	Marina Lévy Sources, sinks, and distribution of sea-surface pCO ₂ : role and magnitude of sub-mesoscale processes	13.30	Peter Cox Highly contrasting effects of different climate forcing agents on terrestrial ecosystem services
09.30	Discussion	13.55	Discussion	09.25	Discussion	13.55	Discussion
09.40	Ed Dlugokencky & Euan Nisbet Global atmospheric methane in 2010: budget, changes, and dangers	14.05	Corinne Le Quééré Constraints on annual emissions and sinks of carbon dioxide	09.35	Peter Rayner Reducing uncertainties in future terrestrial carbon sinks: an approach using process models and data assimilation	14.05	Philippe Ciais Attributing the increase of atmospheric CO ₂ to historical emitters and absorbers
10.05	Discussion	14.30	Discussion	10.00	Discussion	14.30	Discussion
10.15	Coffee	14.40	Tea	10.10	Coffee	14.40	Tea
10.35	Ingeborg Levin Greenhouse gases emission reductions in Europe until 2020 by more than 20% – reality or fiction?	15.00	POSTER SESSION	10:35	Eric Wolff Greenhouse gases in the Earth system: a palaeoclimate perspective	15.00	David MacKay FRS The scale of the decarbonization challenge
11.00	Discussion			11.00	Discussion	15.25	Discussion
11.10	Ralph Keeling & Andrew Manning What have we learned from carbon isotopes and O ₂ /N ₂ ?	15.50	Andrew Watson FRS Monitoring and interpreting the ocean uptake of atmospheric CO ₂	11.10	Justus Notholt Ground-based total column measurements of greenhouse gases using the solar absorption spectrometry	15.55	Discussion
11.35	Discussion	16.15	Discussion	11.35	Discussion	16.00	Crispin Tickell The equities of measurement
11.45	Ray Weiss Quantifying greenhouse gas emissions from atmospheric measurements: a critical reality check for climate legislation	16.25	Nicolas Gruber Warming up, getting sour, losing breath: ocean biogeochemistry under change	11.45	Alistair Manning The challenge of estimating regional emissions from observations	16.10	GENERAL DISCUSSION Panel Convenors: Crispin Tickell, Ron Oxburgh FRS
12.10	Discussion	16.50	Discussion	12.10	Discussion		
12.30	LUNCH	17.00	CLOSE	12.30	LUNCH	17.00	CLOSE