

# Greenhouse gases in the Earth system: Setting the agenda to 2030

Monday 22 to Tuesday 23 February 2010

Organisers: Euan Nisbet, Peter Liss FRS, Andrew Manning and 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: Ralph Keeling and Euan Nisbet		Chairs: Andrew Manning and Ingeborg Levin		Chairs: Peter Liss FRS		Chairs: Martin Manning, Kim Holmén, Crispin Tickell and Lord Oxburgh	
09.00	Welcome by Stephen Cox						
09.05	<b>Martin Manning</b> What Does Policy Need to Know About Greenhouse Gases?	13.30	<b>Professor Steven Wofsy</b>	09.00	<b>Marina Lévy</b> Coupling Between Physics, Biology and Chemistry in the Ocean at Sub-Mesoscale	13.30	<b>Philippe Ciais</b> Tipping Points in the Global Carbon Cycle: Policy Implications
09.30	Discussion	13.55	Discussion	09.25	Discussion	13.55	Discussion
09.40	<b>Euan Nisbet and Ed Dlugokencky</b> Methane – The Changing Global Budget and the Risk of Surprise	14.05	<b>Corinne Le Quéré</b> Uncertainties in estimates of annual sources and sinks of CO <sub>2</sub>	09.35	<b>Peter Rayner</b> Process Modelling and Atmospheric Validation	14.05	<b>David MacKay FRS</b> The Scale of the Decarbonization Challenge
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	<b>Ingeborg Levin</b> The European Greenhouse Gas Perspective	15.00	<b>POSTER SESSION</b>	10:35	<b>Justus Notholt</b> Upward and Downward Remote Sensing of Greenhouse Gases	15.00	<b>Robert Watson</b> A Look to the Future: Marrying and Divorcing Science from Policy
11.00	Discussion			11.00	Discussion	15.25	Discussion
11.10	<b>Ralph Keeling</b> What Have We Learned from Carbon Isotopes and O <sub>2</sub> /N <sub>2</sub> ?	15.50	<b>Andrew Watson FRS</b> Carbon Dioxide in the Oceans	11.10	<b>Alistair Manning</b> What are the Challenges for Using Inversions at Regional Scales?	15.55	Discussion
11.35	Discussion	16.15	Discussion	11.35	Discussion	16.00	<b>Sir Crispin Tickell</b> Precaution and Expectation
11.45	<b>Ray Weiss</b> Nitrous Oxide and Halogenated Greenhouse Gases	16.25	<b>Nicolas Gruber</b> Ocean Acidification and Ocean Oxygen Changes	11.45	<b>Peter Cox</b> Land Carbon Storage and Feedbacks	16.10	<b>GENERAL DISCUSSION</b> <b>Panel Convenors:</b> <b>Sir Crispin Tickell,</b> <b>Lord Oxburgh FRS</b>
12.10	Discussion	16.50	Discussion	12.10	Discussion		
12.30	LUNCH	17.00	CLOSE	12.30	LUNCH	17.00	CLOSE