

# Breakout 2A: Climate Forcing Processes

Jack A. Kaye  
Session Chair

# Summary of Session

Speaker	Affiliation	Subject
Phil DeCola	NASA	Overview (for Dan Albritton)
John Houghton	DOE	CCSP 2.1 - Emissions Scenarios
F. De la Chesnaye	EPA	Future IPCC Emissions Scenarios
Anthony King	ORNL	CCSP 2.2 - North Amer. C Budget
Ed Rubin	CMU	IPCC Report on C Capture & Storage
Daniel Jacob	Harvard U.	NRC Report on Radiative Forcing
A.R. Ravishankara	NOAA	WMO/UNEP Ozone Assess & CCSP 2.4
Phil DeCola	NASA	CCSP 2.3 - Aerosol Impacts

## **Panelists:**

Harlan Watson - DOS

Jae Edmonds - PNNL

Arjun Makhijani - IEER

Elaine Matthews - NASA

# Recurring Themes

- Scenario Issues
  - Remember the definition (not a forecast)
  - Understand plausibility, esp. for “business as usual”
  - Can we bracket and/or attach probabilities?
  - Need to assess uncertainty of demographics, labor productivity, and energy technology
- Need for Regional Information and Connection to Uncertainty
  - People want at useful scales (“Nobody manages a 2x2 box”)
  - Decreasing scales leads to increased uncertainty
  - Increased uncertainty can limit usefulness for policy/management

# Recurring Themes, cont.

- Definition of Forcings vis a vis Feedbacks
  - Potential feedbacks can be significant relative to parameters in scenarios
  - Don't arbitrarily restrict forcing to well-mixed GHGs (esp. LC/LUC)
- Interconnectedness of Issues
  - Multiple assessments serve different sponsors, but are connected by environment
- Process Issues - National vis a vis International Assessments
  - Have good models now for how to build national products around international process, maximizes productivity of community that has to do both
  - Stakeholder involvement - early and active makes it more effective

# Mapping of Themes to Questions

- Effectiveness
  - Want regional, don't like uncertainty, current state of science makes it hard to get both to degree desired
- Assessment Coverage
  - Not much discussion on this subject - no gaps identified
  - Some concern that methane has been under emphasized
- Process
  - Consistent use of terms needed
  - Scenario issue needs to be better explained
- Integrating Assessments
  - Found a way to structure US relative to international
  - Scientifically they're coupled