



**4th AIMES Scientific Steering Committee Meeting:
INTEGRATED EARTH SYSTEM SCIENCE AND APPLIED EARTH SYSTEM SCIENCE
Kirstenbosch National Botanical Garden, Cape Town, South Africa 5-6 May 2008**

Draft agenda

DAY 1 Monday, May 5

ASSESSMENT, REPORTS AND EARTH SYSTEM MODELING

- 0830-0900** Welcome, approval of 2007 minutes, outline of meeting structure (*Prentice*)
- 0900- 0930** Towards New Scenarios and IPCC an AIMES/WGCM collaboration (*Hibbard*)
- 0930-1000** Young Scholar's Network (*Mahowald*)
- 1000-1030** The International Nitrogen Initiative (INI): from Process to Decision Support (*Martinelli*)
- 1030-1100** **Coffee Break**
- 1100-1130** Integrated History and Future of People on Earth (IHOPE) (*Costanza/Hibbard*)
- 1130-1200** Plant Functional Classifications – FTI update: (*Prentice*)
- 1200-1230** Modeling Ecosystem Goods & Services in the Earth System (*Costanza*)
- 1230-1400** **Lunch break**
- 1400-1530** ***Earth System Modeling: Where are we and what is our vision? (Prentice)***
Points discussed previously:
 i. Validation and diagnostics with paleo data
 ii. Including more dynamic biology
 iii. Links to human dimensions modelling: at least in part, through integrated assessment and climate modelling (AOGCM/ESM) activities
 iv. Re-invigorating fully coupled vs. reduced form climate modelling: how to improve a dynamic interaction?
- 1530-1600** **Coffee break**
- 1600-1700** *Wrap up and discussion: Future Directions in ESM: C⁴MIP to C^xMIP, Regional to Global Interactions (e.g., NEESPI, MAIRS), links with WGCM, WGNE with regard to pattern and downscaling*



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DAY 2 **Tuesday, May 6**

830-930 AIMES SP Review and Response to Comments (*Hibbard/Prentice*)

930-1000 Land Use/Land Cover and Emissions: harmonizing ESM and IAM for IPCC (*Hibbard*)

1000-1030 ***Applied Earth System Modeling: Climate consequences and stakeholders (Hibbard)***
AIMES and AESS needs to address stakeholder involvement: to what extent should AIMES mediate dynamically linked models to engage stakeholders?

An assessment of where we are:

- (a) Interactions with assessment (e.g., IPCC)
- (b) How to address thresholds, tipping points, broad question of dangerous interference in the Earth system and in ecological, hydrological and other ecosystem service sectors by coupling traditional ESM that produces climate forcing to ESM that produces climate consequences: biodiversity, sea level rise (SLR), etc.

1030-1100 **Coffee break**

1100-1230 (c) INI; process to applications: nitrogen, biofuels and policy (*Martinelli*)

- Enhancing and understanding production, policy, public through communication and models and Earth system analyses.

1230-1400 **Lunch break**

1400-1530 *Continue discussions on Applied Earth System Modeling: where should we go?*

- (d) "End-to-End Assessment" (*Prentice*):
 - Concept/proposal towards improved modelling of the hydrological cycle in AOGCMs for meeting the requirements of decision makers in climate mitigation and adaptation.
- (e) Ecosystem Goods & Services (*Costanza*)
 - Leads to gaming, etc.
 - Where should we go with an Earth Systems approach to ecosystem goods & services and biodiversity: what are the tools needed?

1530-1600 **Coffee break**

1600-1700 Next AIMES SSC, AIMES Open Science Meeting, SSC Rotation (*Hibbard, Prentice*)

1700 **Close of Meeting**