Analysis Integration and Modeling of the Earth System (AIMES) Young Scholar’s Network Status report (June, 2007)

Co-chairs: Natalie Mahowald (NCAR), Kathy Hibbard (NCAR), Marko Scholze (UK-QUEST)
2008 Workshop committee: Don Hankins, Silvia Kloster and Caroline Lehmann (young scholars); Jim Randerson, Jon Foley, Cathy Whilock.

**YSN goals**
- Foster collaborations among Young Scholars on integrative research to better understand the role of humans in perturbing biogeochemistry and climate.
- Foster research across disciplinary and geographic boundaries

**Summary**
The young scholar’s network has had 3 workshops (as of June 7, 2007). These workshops have brought together a total of approximately 100 young scientists (<10 years from PhD) from many countries and disciplines to foster more collaboration on AIMES-type issues. We have tried to include as many developing country participants as possible.

Feedback from the workshops has been quite positive. We have an email list and wiki, and some of the young scientists have meet at recent AGU and EGU meetings.

While interactions within the workshops have been quite positive, online interactions have not been as successful. We have also still not entrained as many social scientists into the network as we would like. A second phase of the YSN will begin to be envisioned in the next few months in order to move the YSN from a ‘new’ organization to something with a more mature viewpoint.

**Brief synopsis of past and future activities**

**Fiscal Year 2005**
- First workshop in June on Breckenridge, Colorado
  - Two themes, 50 participants
  - Funded by NCAR, NSF and UK-NERC/QUEST (3 year grant, lead PI is Marko Scholze)
  - Organized by ASP
  - Web page, email list organized by NCAR’s Advanced Study Program (ASP)
(continued through present)

**Fiscal Year 2006**
- Second meeting: September in Mexico City. Urbanization interactions with Biogeochemistry and Climate (organized by CGD)
  - Joint with Global Carbon Project/Global land Project conference on Regional Carbon Management.
  - Funded by NSF, and NCARP and continuing grant from UK-NERC/QUEST
    - UK-NERC/QUEST at ~10-20$k level for 3 years (more money for workshops in UK)
- 3 years of funding by NSF approved at 40/50/50$k per year levels (PI: Mahowald)
- NCAR/ASP makes 10$k/year available to YSN

**Fiscal Year 2007**

June meeting in UK on Land Use modeling for earth system models (just prior to AIMES SSC)
- Organized primarily by UK-QUEST office
- Funded by both US and UK sources
- Article in Nature about YSN (attached)

**Fiscal Year 2008**

- Funded mostly by NSF-Carbon and Water grant to Mahowald, Randerson and Foley
- Additional funds from QUEST, NCAR/ASP and NSF YSN money (most to be carried over to 2009 in no cost extension)
- Information about this meeting is available at: [http://www.aimes.ucar.edu/ysn.shtml](http://www.aimes.ucar.edu/ysn.shtml)
  Over 50 well qualified young scholars applied, and 30 were accepted, across a broad range of disciplines, backgrounds and geographic locations.

**Fiscal Year 2009**

Tentative plans:
- Joint YSN/IHOPE workshop
- Integrated History and Future of People on Earth (IHOPE [http://www.aimes.ucar.edu/activities/ihope.shtml](http://www.aimes.ucar.edu/activities/ihope.shtml/))

**Results from 2007 workshop meeting:**

The third Young Scientist Network workshop, Bristol, UK, June 2-5, 2007 on Modelling Land Use Decisions and their Consequences to Biogeochemistry and Climate Systems was funded by this grant. Co-funding for this workshop came from QUEST and NCAR/ASP. 20 young scientist from 13 different countries were fully funded to participate in this workshop. 3 ‘senior’ scientists attended the meeting from 1-3 days. There were natural and social scientists participating in the session. Participants worked at the local to regional to global level, some conducting observations, some doing global modeling.

Overall the workshop was a great success. Participants were very enthusiastic about the workshop, and the discussions were dynamic and cross disciplinary. At the final day of the workshop participants were joining the IGBP/AIMES scientific steering committee meeting which was hold at the same time nearby. Results from an evaluation of the workshop by the participants were very positive with an overall rating of the workshop of 8.5 (rate on a scale of 1 to 10, 10 is perfect). Participants indicated that their attendance would impact their future research direction with a rating of 8/10. 14 out
of 20 said that is provided them with new collaboration or ideas (an additional 4 said they had some ideas, and 2 said they don’t know the impact).

Before coming to the workshop, the participants were asked to write up a report with others from the group, so they interacting before coming together. Output of this workshop is a meeting report submitted to EOS Transactions summarising the discussions during the workshop and identifying research gaps in this field. Further output of this workshop was the organisation of a session on 'Including Land Use and Land Cover Change in Earth System Models' at the AGU fall meeting, December 2007, San Francisco, by some of the workshop participants. The session was very well received by the scientific community and attracted more than 30 presentations.

The agenda from the meeting follows, and an attachment has a list of the attendees.
## Draft Agenda: AIMES YSN meeting “Land-Use Decision Making”
June 2-5, 2007 Bristol

### June 2:
- **Morning** Arrival of participant (also June 1)
  - 2:00-2:30 Welcome, goals and introductions
  - 2:30-4:00 Anette Reenberg (“senior speaker” reflections on whitepaper)
  - 4:00-4:30 Coffee Break/informal discussion
  - 4:30-5:00 White paper presentation: physical context of land use change
  - 5:00-5:30 White paper presentation: social context of land use change
  - 5:30-6:00 Discussion/Poster

### June 3:
- 9:00-11:00 Panel Discussion: 3 Senior speakers on the topic
- 11:00-11:30 Coffee Break/informal discussion
- 11:30-12:00 WP presentation: 1st land use change example (high latitudes)
- 12:00-12:30 WP presentation: 2nd land use change example (temp latitudes)
- 12:30-1:30 Lunch (groups with senior speakers)
- 1:30-3:00 Alan Grainger (“senior speaker” reflections on whitepaper)
- 3:00-3:30 Discussion/Poster
- 3:30-4:00 Coffee Break/informal discussion
- 4:00-6:00 Café-style discussion

### June 4:
- 9:00-9:30 WP presentation: 3rd land use change example (tropical savanna)
- 9:30-10:00 WP presentation: 4th land use change example (tropical forest)
- 10:00-10:30 Discussion
- 10:30-11:00 Coffee Break/informal discussion
- 11:00-12:30 Dennis Ojima (“senior speaker” reflections on white paper)
- 12:30-1:30 Lunch
- 1:30-3:00 Discussion/Poster?
- 3:00-3:30 Coffee Break/Informal Discussion
- 3:30-5:00 Discussion: how to proceed, writing assignments.
- 5:00-6:00 Final group discussions.
- 6:00 Workshop adjourns

### June 5:
- 9:00 Coach trip to Dartington Hall to join the AIMES SSC meeting

### Small and large group discussions:
We have several goals for this meeting that are served by the discussions: 1) get white paper written, 2) allow participants to interact with ‘senior’ speakers and 3) encourage participants to collaborate with each other on new interdisciplinary topics.