Northern Eurasia Terrestrial Processes, their Change and their Role in the Global Earth System

Aspen, Colorado, August 2007
Goals of the Meeting

• Discuss current knowledge on ongoing changes in Northern Eurasia and their linkages with global change,

• Assess regional and global modeling capabilities,

• Identify emerging problems and needs.
Expected outcomes

1. Synthesis of current state of knowledge of changes and modeling capabilities (Collection of ppt presentations; Material for future books)
2. Recommendations for integration of NEESPI regional studies with global climate and Earth System modeling activities
3. Recommendations on integration of land surface models in the NEESPI domain
4. Identification of missing research topics critical for achievement of the NEESPI objectives and thus for global change research
5. Summary articles (EOS, BAMS)
Synthesis of current state of knowledge of changes and modeling capabilities

• Collection of ppt presentations
• Materials for future book(s)
  • “Changing Environment in the Northern Eurasia Arctic” (tentative title; proposal to “Springer” in the end of August)
  • Others?
• Identification of key ongoing projects with integrative capabilities; Possible overarching project
Integration of NEESPI regional studies with global climate and Earth System modeling activities

- Quantification of major biogeochemical and biogeophysical feedbacks important for Global Change
- Tools to downscale global change signals into the NEESPI domain
- Tools to incorporate regional non-linearities (sub-scale processes) from the NEESPI domain into GCMs
Integration of the land surface models in the NEESPI domain

Methods to incorporate in land surface models:

– Cold land processes
– Paludification
– Dynamic vegetation
– Desertification processes
– What else?
Identification of missing research topics critical for achievement of the NEESPI objectives and thus for global change research

• Assessment of current NEESPI projects versus the Initiative objectives

• Recommendations for International and National Agencies to support specific topics
Publications:

• We have published the entire NEESPI Science Plan on the NEESPI web site and its Executive Summary in *Global and Planetary Change* (April 2007)
• Additionally, we have in preparation: 2 special NEESPI issues (*J. Climate* and *ERL*) and IPY-dedicated book (already in “project”)
• Now, we want:
  – To publish the current status of the Initiative: ongoing projects, first results, recognition (*BAMS* or AGCI white paper ?)
  – To publish Summary of this Workshop and its recommendations (*EOS*?)