

# Discussion

- Metrics of change, uncertainties
- Definition of sustainability, tipping points (Lenton)
- Focus: biospheric/natural processes or anthropogenic drivers/interactions?
- Land use modelling: top down vs. Small-scale decision
- Regional aspects
- Long-term/paleo perspective on biosphere/climate interactions, humans from this perspective? Validation problem
- EMIC with human component

# Discussion

- Conceptual models, long-term, what are the important processes? E.g. Nutrient (N, P) cycling
- model data integration, data assimilation, adjoint land model, CCDAS, assimilation of isotopes
- Data + validation, sharing of data sets, need for common benchmark/protocol, what level of disagreement is still acceptable?
- Subgrid information/variability – how to?

# Discussion

- GINKGO format:
  - More specialized sessions?
  - EU COST proposal? Strategic workshops? Short-term scientific missions? Training schools? (at least 5 EU countries, interdisciplinary, 3 pages, deadline: end of March, list of most important topics); focus on products? Usually focussed on topic and collab of groups within EU;
  - Workshops: benchmarks/protocol, model intercomparison (data integration on diff time scales), data, soils, fire, land use/humans, ecosystem modelling, what are the key bio-processes for AR5?
  - Future purpose? Target (eg. synthesis paper)?

# Next GINKGO

- How?
  - General session, small specialized workshops adjacent?
  - Challenge people topics, eg environmental history, intellectual stimulation
- Topic?
  - Modelling synergies: JSBACH as an open platform, LPJ, modular setups
  - Case study: take models to simulate atm-bio interactions? Missing data/model components?
  - What are the key bio-processes for AR5?
  - Little ice age missing carbon sink?
  - Soil carbon?

# Next GINKGO

- Where?
  - PIK
  - Wageningen (perhaps with EU)
- When?
  - April = EGU
  - October/November 2008