

'Danish Network for Land System Science'

Introduction to Workshop-2005

Organizers

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Workshop aims

The workshop will aim to:

- > provide a current state of the art within Danish research of relevance to Land Systems
- > provide a forum for discussion and priority setting for Danish research into the human dimensions of global change and integration
- > bring together Danish and international research results and researchers in order to discuss Danish research and understanding of global change
- > integrate local and global scales and short and long time perspectives
- > discuss the interaction and integration of modeling and empirical research on global change, and specifically the human dimension components



Background: arguments for a 'Danish Network for Land System Science'

- 'Danish Network for Land System Science' (LaSyS) will bring together leading Danish research groups addressing *human dimensions of global change*, specifically issues related to the use of land.
- LaSyS has its roots in research performed by the 'The Global Change and Terrestrial Ecosystem' and 'Land Use Land Cover Change' (GCTE-LUCC) communities under the IGBP and IHDP programme over the past ten years
- LaSyS aims at positioning acknowledged, but currently not very well coordinated, Danish research groups to become part of these international efforts.
- It will do so by bringing together natural science (geo-science as well as biology), agricultural science, social science and humanities with interest and research experience in key aspects of 'land system science'.
- The ambition is to inspire future directions of research for existing research groups, to broaden the research and obtain a high degree of interdisciplinary interaction and integration in the research of human dimensions of global change.

The international inspiration

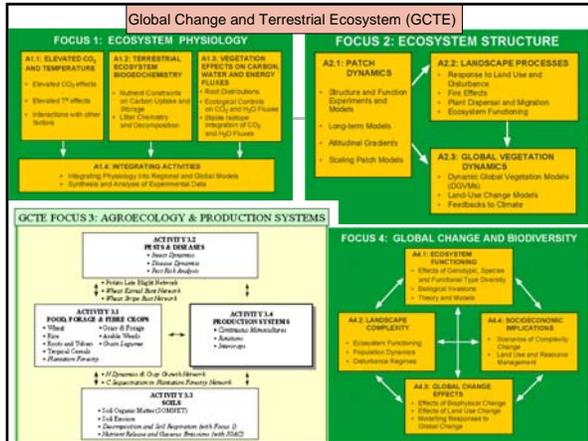
Interdisciplinary research programmes with focus on ecosystems, land use and land cover

- GCTE
- LUCC
- Global Land Science Plan
- ...as well as other more modest but like-minded conceptual frameworks

Global Change and Terrestrial Ecosystem (GCTE)

Scientific objectives

- To predict the effects of changes in climate, atmospheric composition, and land use on terrestrial ecosystems, including (i) agriculture, forestry, soils; and (ii) biodiversity.
- To determine how these effects lead to feedbacks to the atmosphere and the physical climate system.

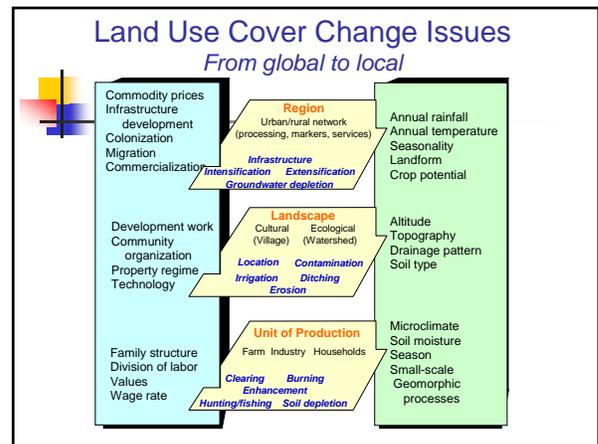
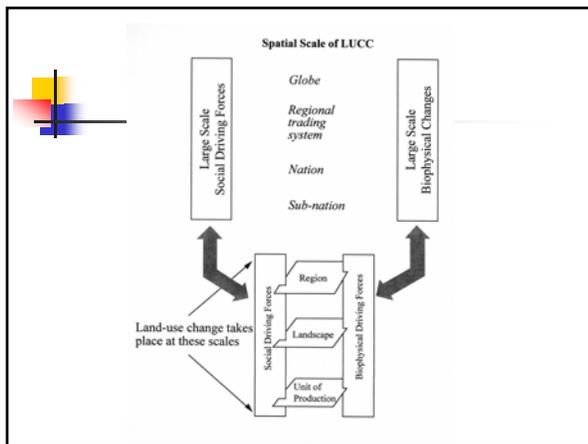
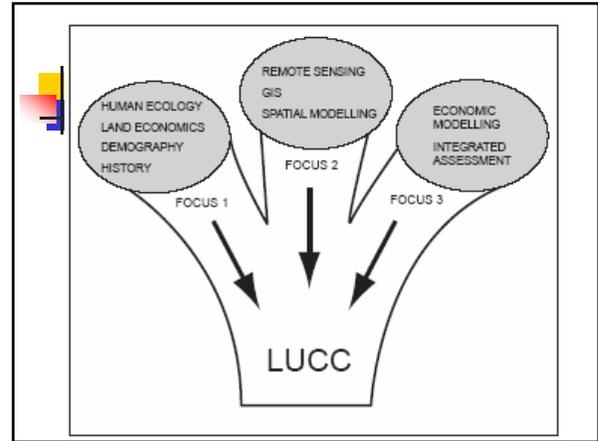
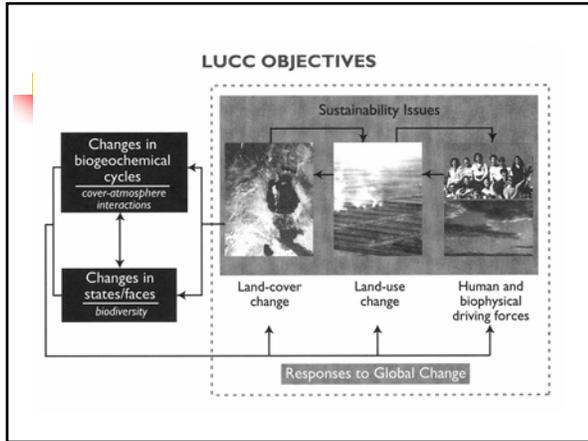


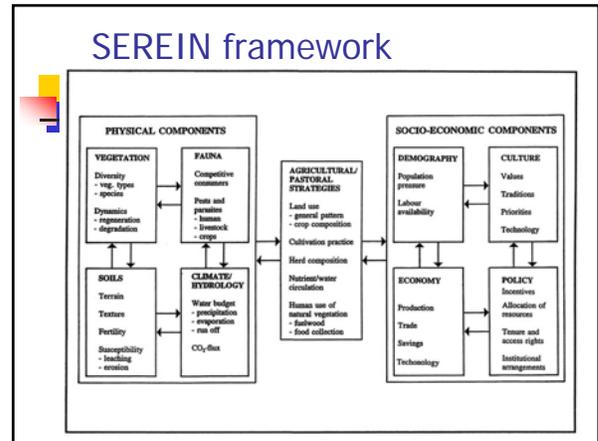
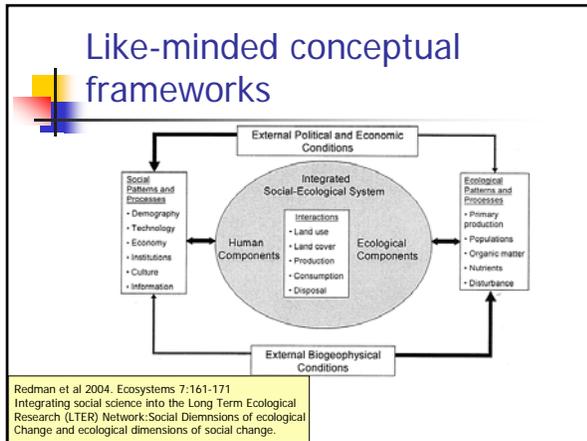
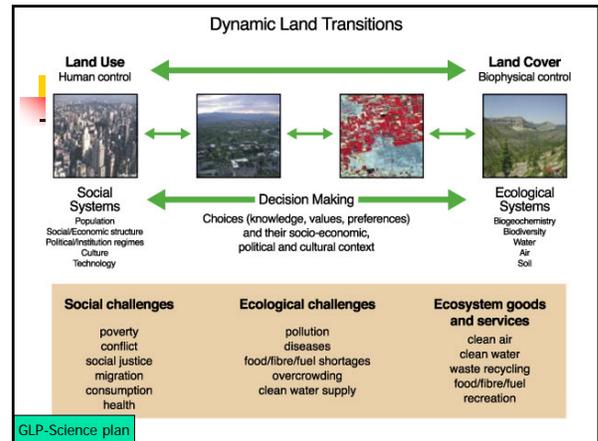
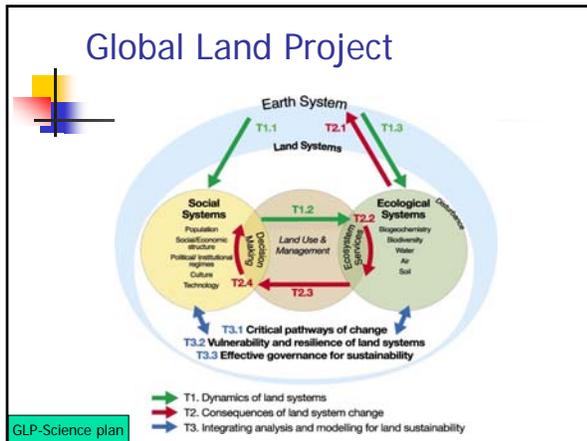
Land use and land cover change (LUCC)

Defining themselves - from the LUCC homepage

Our Primary Objectives:

- to obtain a better understanding of global land-use and land-cover driving forces.
- to investigate and document temporal and geographical dynamics of land-use and land-cover.
- to define the links between sustainability and various land uses.
- to understand the inter-relationship between LUCC, biogeochemistry and climate.





- ## Underlying recognition
- It is not tenable to study ecological and social systems in isolation from one another
 - Almost all human activity has potential relevance to global change
 - Biogeophysical contexts strongly condition human decisions
 - There is a need for innovative ways of linking the social and ecological domains

- ## Issues of importance
- Integrating
 - Local and global scales
 - Short and long term perspectives

Workshop programme

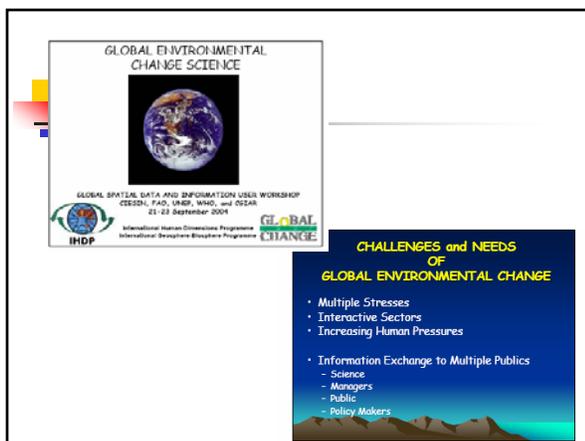
- A: Broader perspectives
- B: Land systems research, DC
- C: Land systems research, DK
(ecosystem services and landscape diversity)
- D: Land systems research in DK
(socio-economic and institutional driving forces)
- E: Medium and long term perspectives

Workshop elements

- Invited key note speakers -> inspiring perspectives
- Oral presentations
- Poster session – with oral introduction
- Working group sessions -> creating an overview and discussing perspectives and way forward

Workshop output

- Input to planning for 2006
- Special issue of Danish Journal of Geography 2006
(deadline for submission medio December, subject to normal peer review process)
- Discussion papers - home page



The graphic features a central image of the Earth with the text "GLOBAL ENVIRONMENTAL CHANGE SCIENCE" above it. Below the image, it reads "GLOBAL SPATIAL DATA AND INFORMATION USER WORKSHOP" and "CEESD, FAD, VEG, WIND, and OSCAR" with the date "21-23 September 2004". Logos for IHDP and GLOBAL CHANGE are also present. To the right, a blue box with a mountain background contains the text "CHALLENGES and NEEDS OF GLOBAL ENVIRONMENTAL CHANGE" followed by a list of bullet points.

GLOBAL ENVIRONMENTAL CHANGE SCIENCE

GLOBAL SPATIAL DATA AND INFORMATION USER WORKSHOP
CEESD, FAD, VEG, WIND, and OSCAR
21-23 September 2004

IHDP GLOBAL CHANGE

CHALLENGES and NEEDS OF GLOBAL ENVIRONMENTAL CHANGE

- Multiple Stresses
- Interactive Sectors
- Increasing Human Pressures
- Information Exchange to Multiple Publics
 - Science
 - Managers
 - Public
 - Policy Makers