

# Global, European and local aspects of assessments

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Environmental Systems Analysis

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# What is an Assessment?

- ✓ An assessment is a critical evaluation of information, for purposes of guiding decisions on a complex, public issue
- ✓ The topic is defined by the stakeholders, who are typically decision-makers. Assessments are policy relevant, but not prescriptive.
- ✓ Assessments are conducted by a credible group of experts with a broad range of disciplinary and geographical experience, in a balanced and transparent way.
- ✓ Assessments *reduce* complexity but *add value* by summarisation, synthesis and sorting what is known and widely accepted from what is not known (or not agreed)
- ✓ Assessments relate to the situation at a particular time and in a given geographical domain. Often repeated after some period.

# Assessment Characteristics

- ✓ Involve all stakeholders in the the preparation and peer-review – ownership of the process and results is essential
- ✓ Conducted according to an open, transparent, representative and legitimate process
- ✓ Findings to be policy relevant, not policy prescriptive; use “if ...then” approach
- ✓ Technically accurate
- ✓ Incorporate different views
- ✓ Take a local, regional and global perspective
- ✓ Risk assessment, management and communication

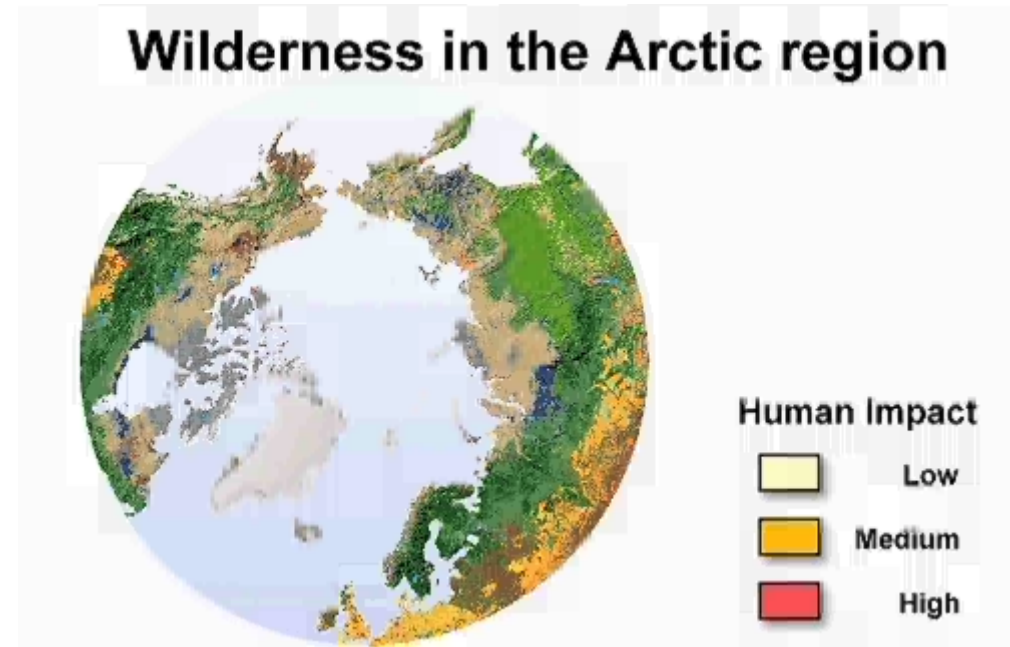
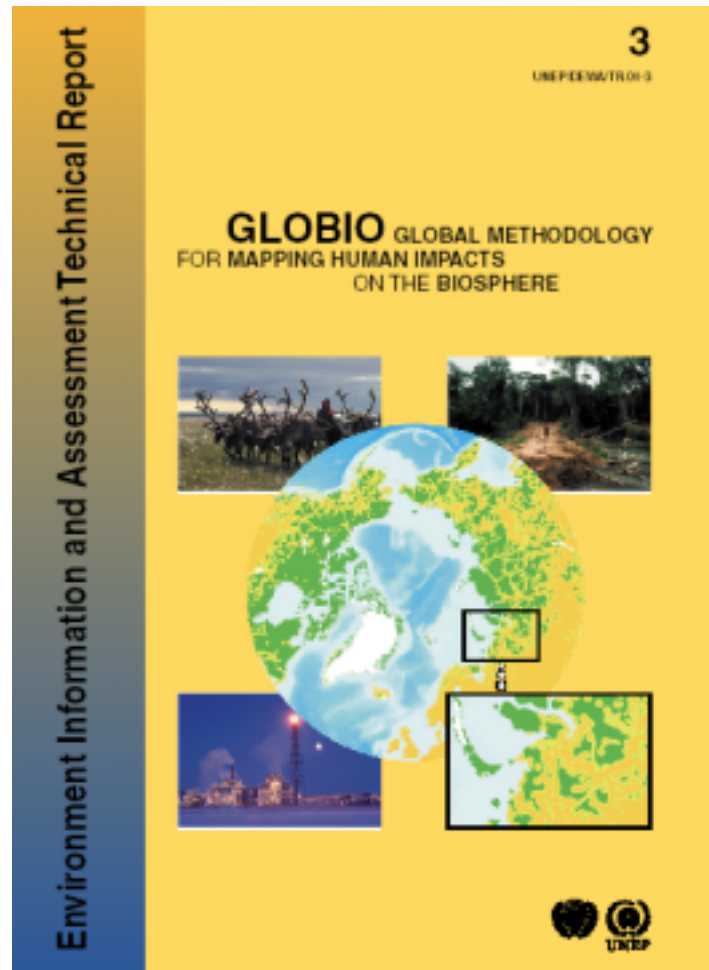
# Assessment vs Review

	Review	Assessment
<i>Audience</i>	Scientists	Decision-makers
<i>Done by</i>	One or a few	Large and varied group
<i>Topic</i>	Simple and narrow	Broad and complex
<i>Identifies gaps in</i>	Research: curiosity-driven	Knowledge for implementation: problem-driven
<i>(Un)certainty statements</i>	Not required	Essential
<i>Judgement</i>	Hidden	Required but clearly flagged
<i>Coverage</i>	Exhaustive, historical	Sufficient to deal with main range of uncertainty
<i>Synthesis</i>	Not required	Essential to reduce complexity

# An assessment is not...

- ✓ A research project
  - Most data should already be collected, peer-reviewed and in the public domain
  - Gap filling, research on assessment, new runs of old models and synthesis are permissible
- ✓ A review paper
  - Focussed on policy
  - Judgement, clearly labelled as such, is required
- ✓ An advocacy piece
  - Must be balanced and evidence-based
- ✓ It's not an opportunity to promote your pet topics or own work
- ✓ It's not a vehicle to develop a research agenda

# GLOBIO: mapping human impacts



# Land Use Trajectories:

## Understanding Land Use Dynamics

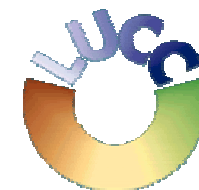


📄 Tropical Deforestation

📄 Desertification

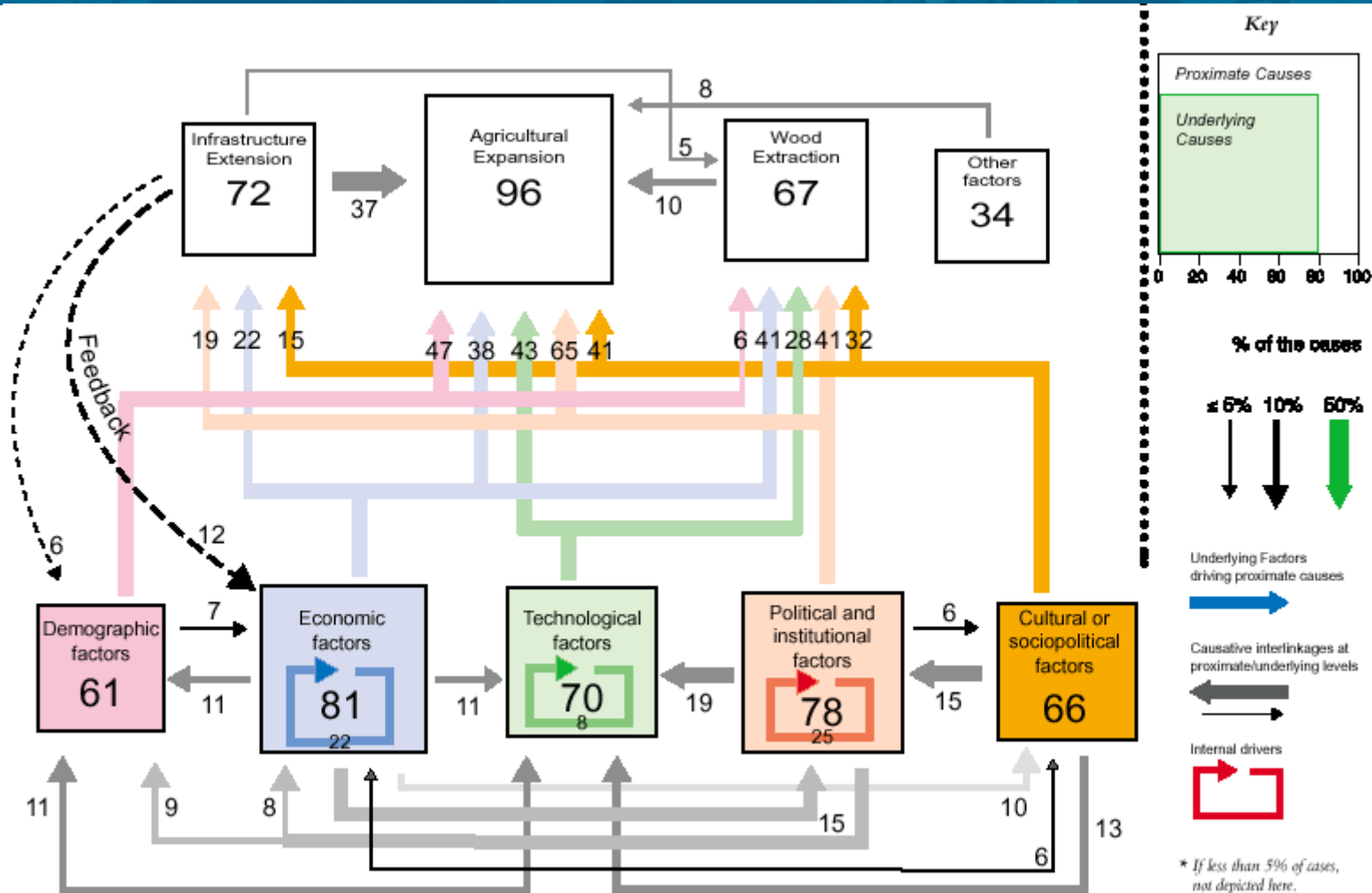
📄 Agricultural Change

📄 Vulnerability



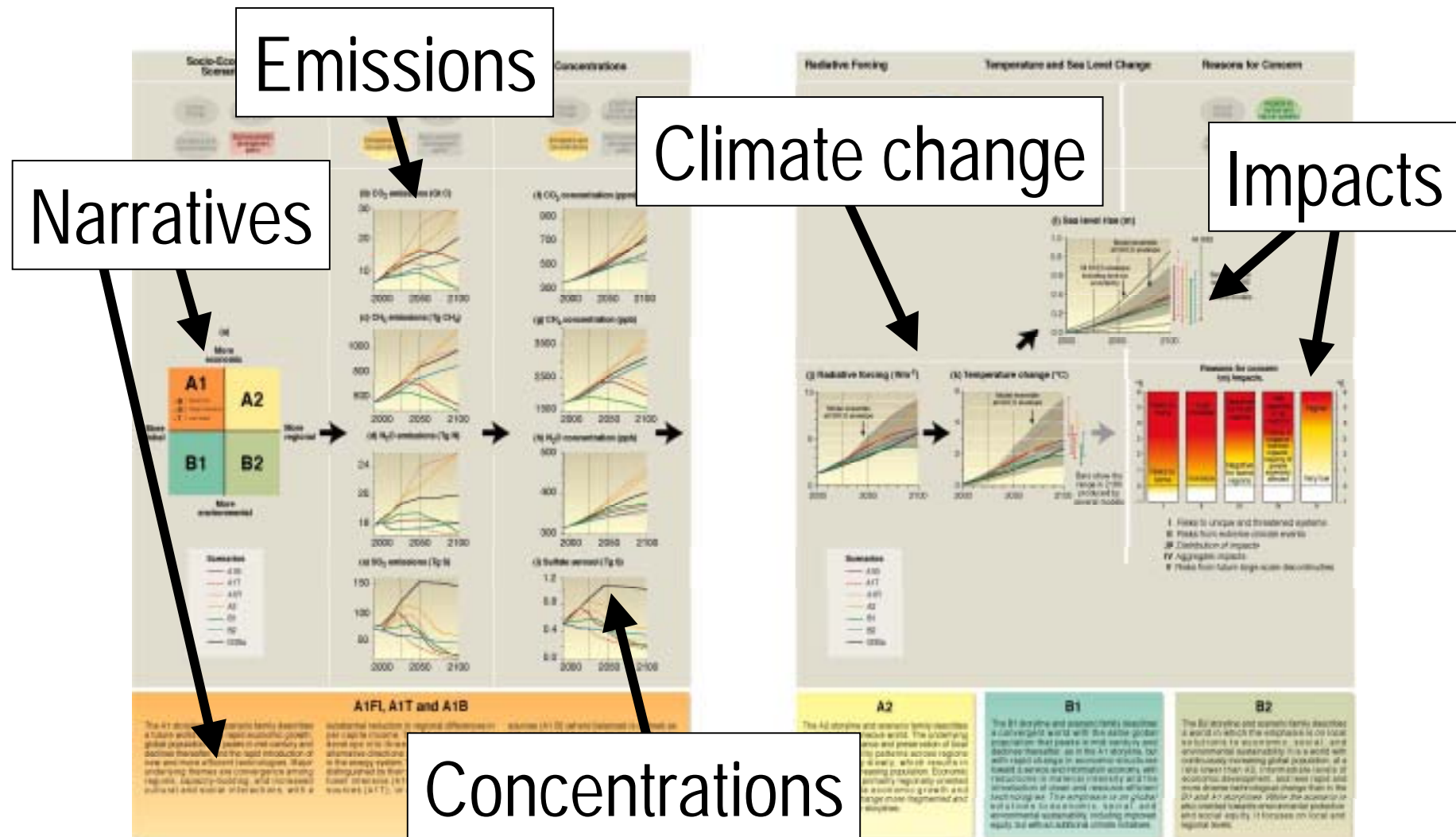
Land Use and  
Land Cover Change

# What drives deforestation?



The causes of deforestation (Geist & Lambin, 2001)

# The final figure from IPCC's synthesis report



# How do we determine

“What constitutes dangerous?”

- ✓ Dangerous is a value judgment and not appropriate for analysts to determine
- ✓ I PCC can give information on impacts that may be considered to be dangerous
- ✓ I PCC's synthesis organized along several “Reasons for concern” about what may be dangerous

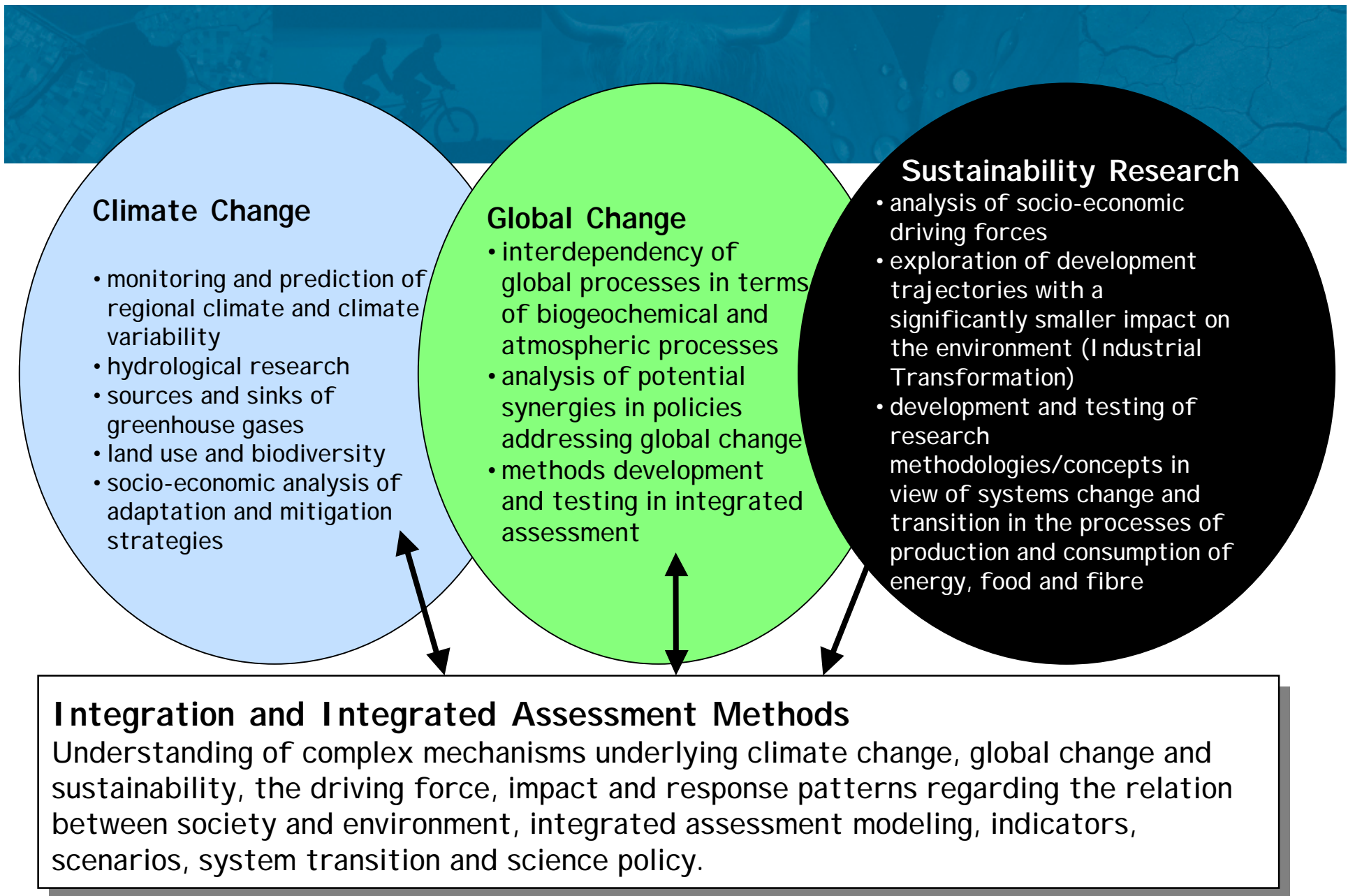
# Understanding global environmental change

➡ WHAT?

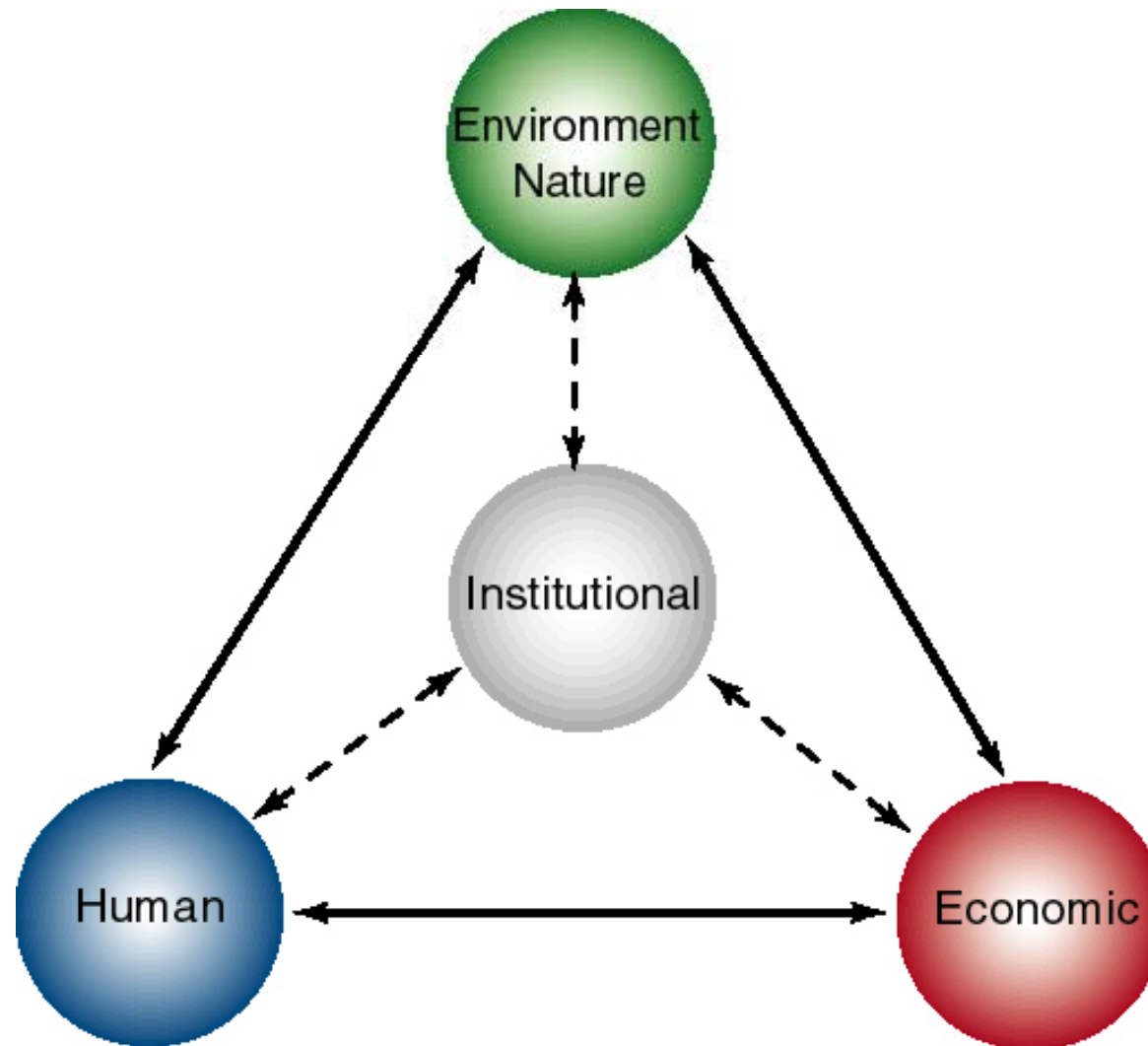
➡ WHERE?

➡ HOW ?

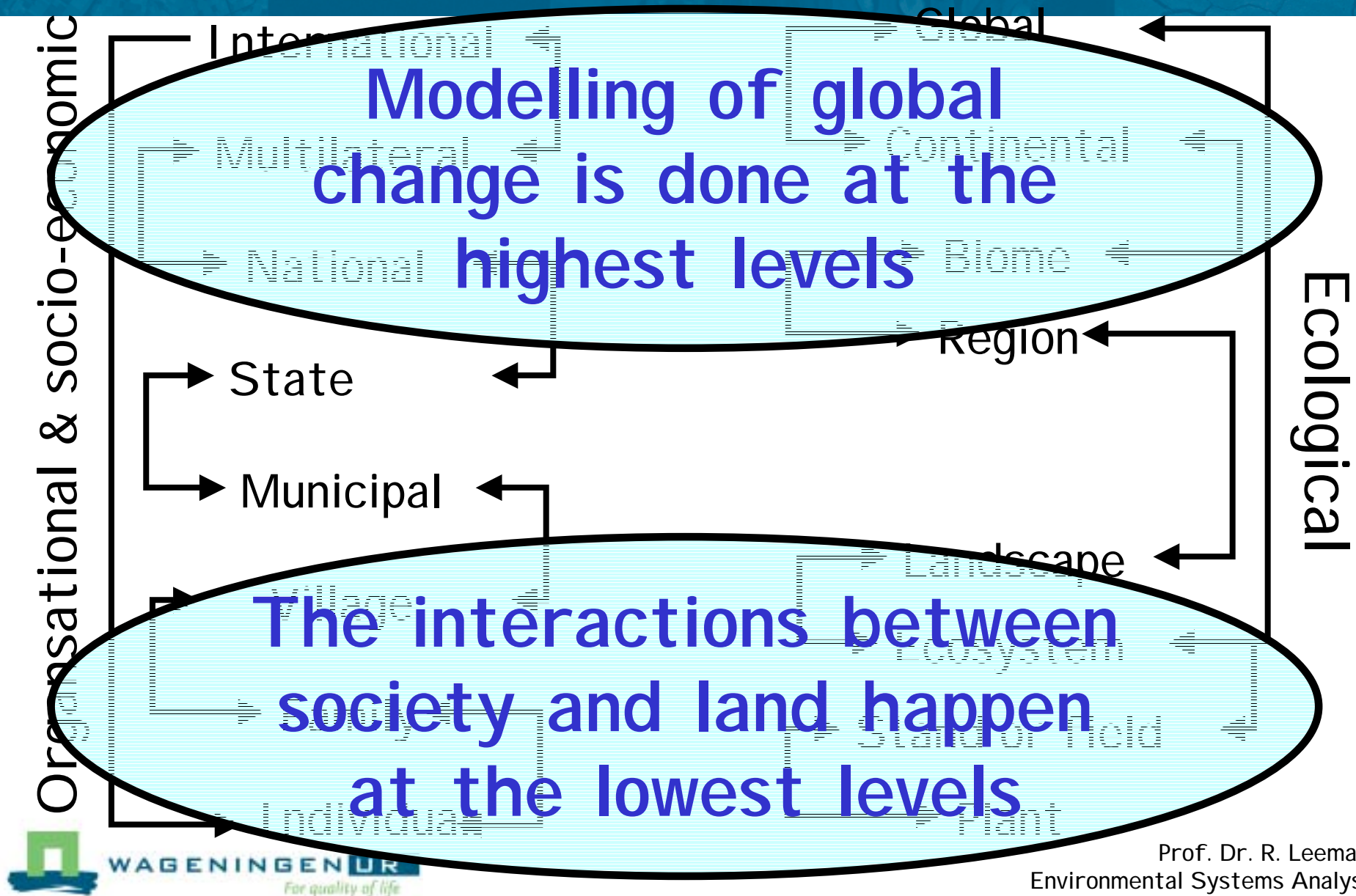
➡ WHY?



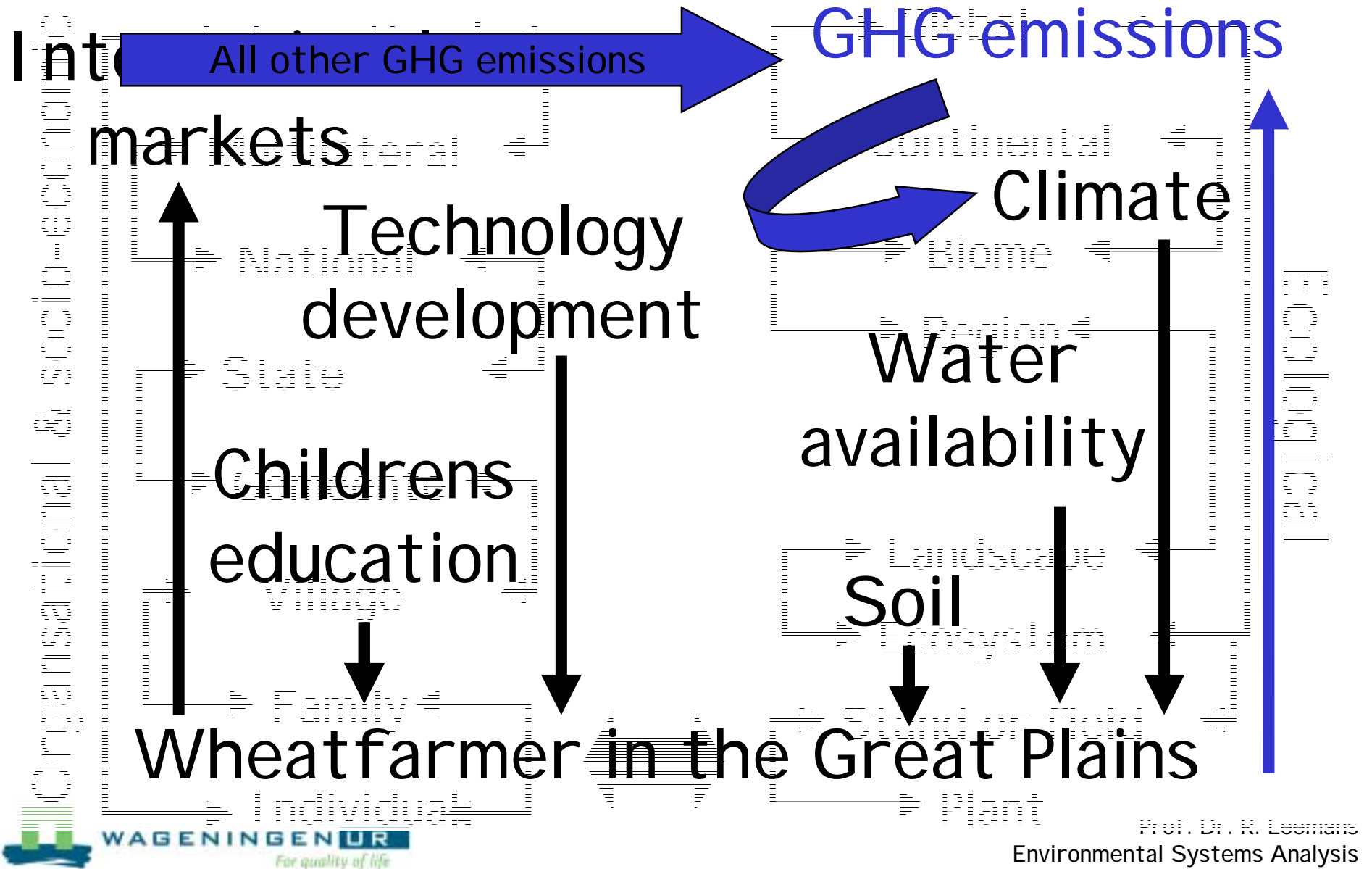
# The domains of development



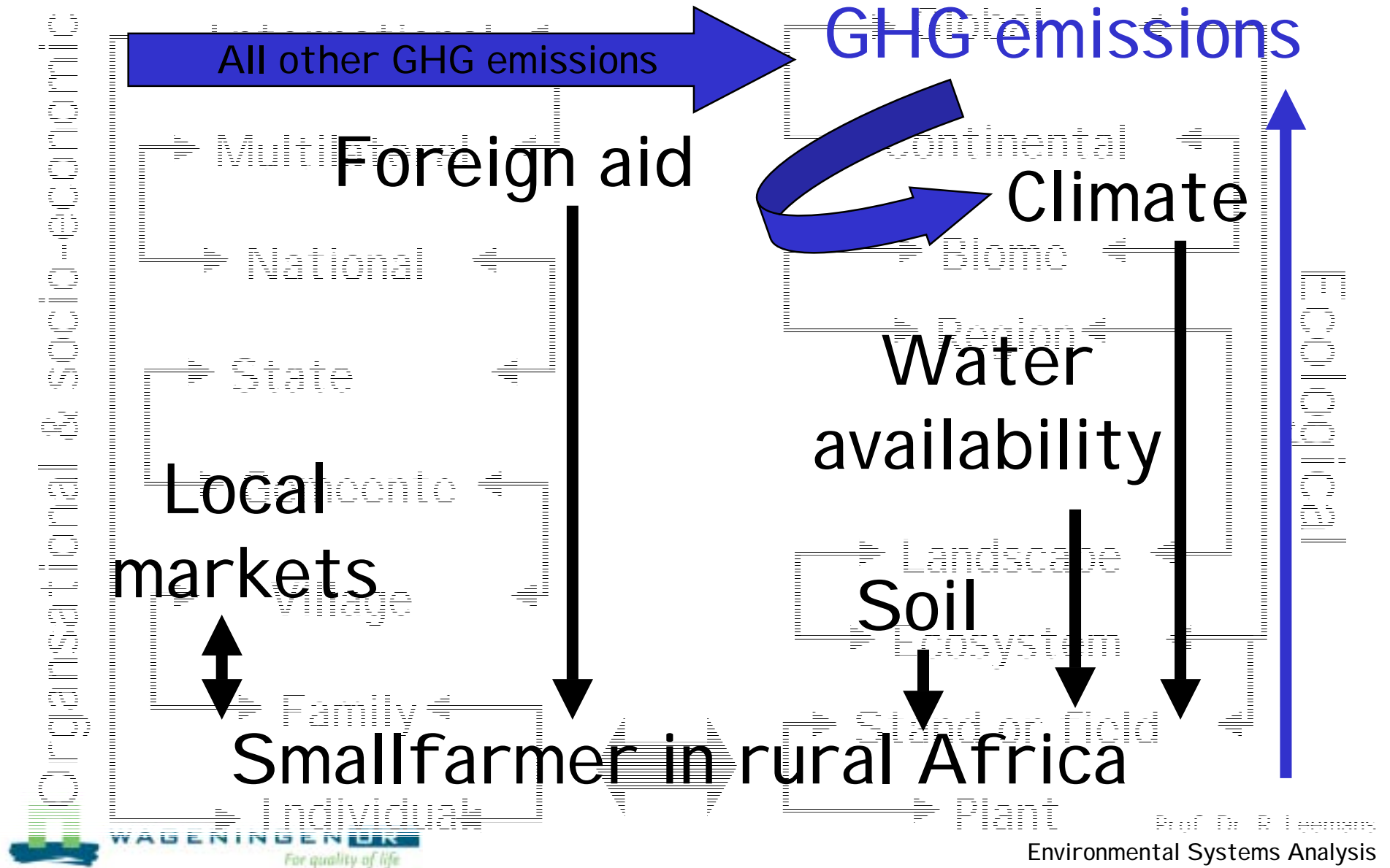
# Different dimensions of land use



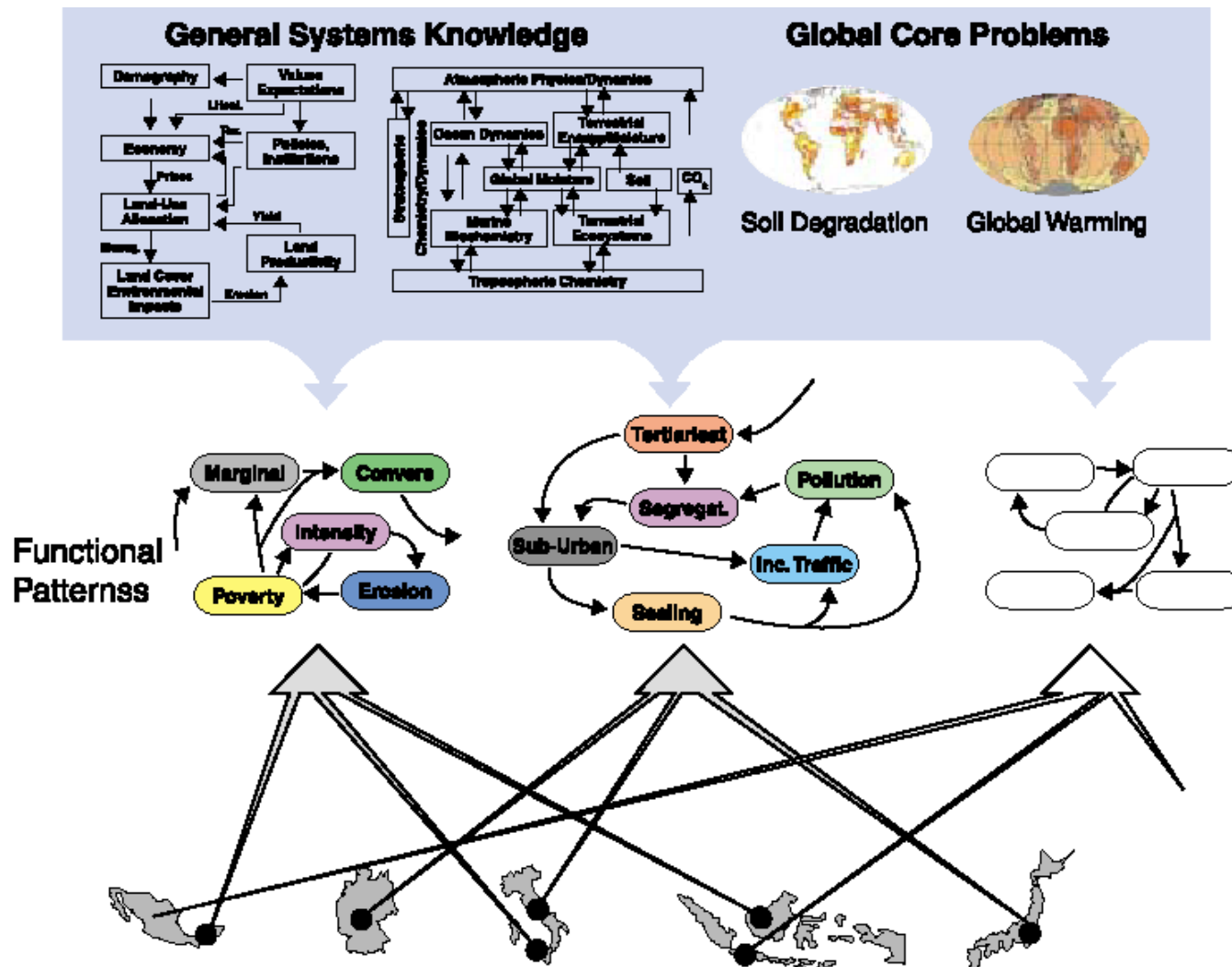
# Different dimensions of land use



# Different dimensions of land use



# The syndrome approach



# Concluding remarks

## ✓ Impacts & vulnerability assessments:

- Use both observed changes and simulated changes to realistically assess the whole possible range of change
- Put the impact into context (link to other problems)
- Assess how people, sectors and society respond and adapt.

## ✓ Requirements for integrated policy assessments

- Integrated assessment is more than a causal chain
- Solutions should be linked to local, regional and international policy tools and targets (e.g. CBD ecosystem approach; a significant decline in the biodiversity reduction in 2010; Millennium Goals)

# Thanks for your attention

