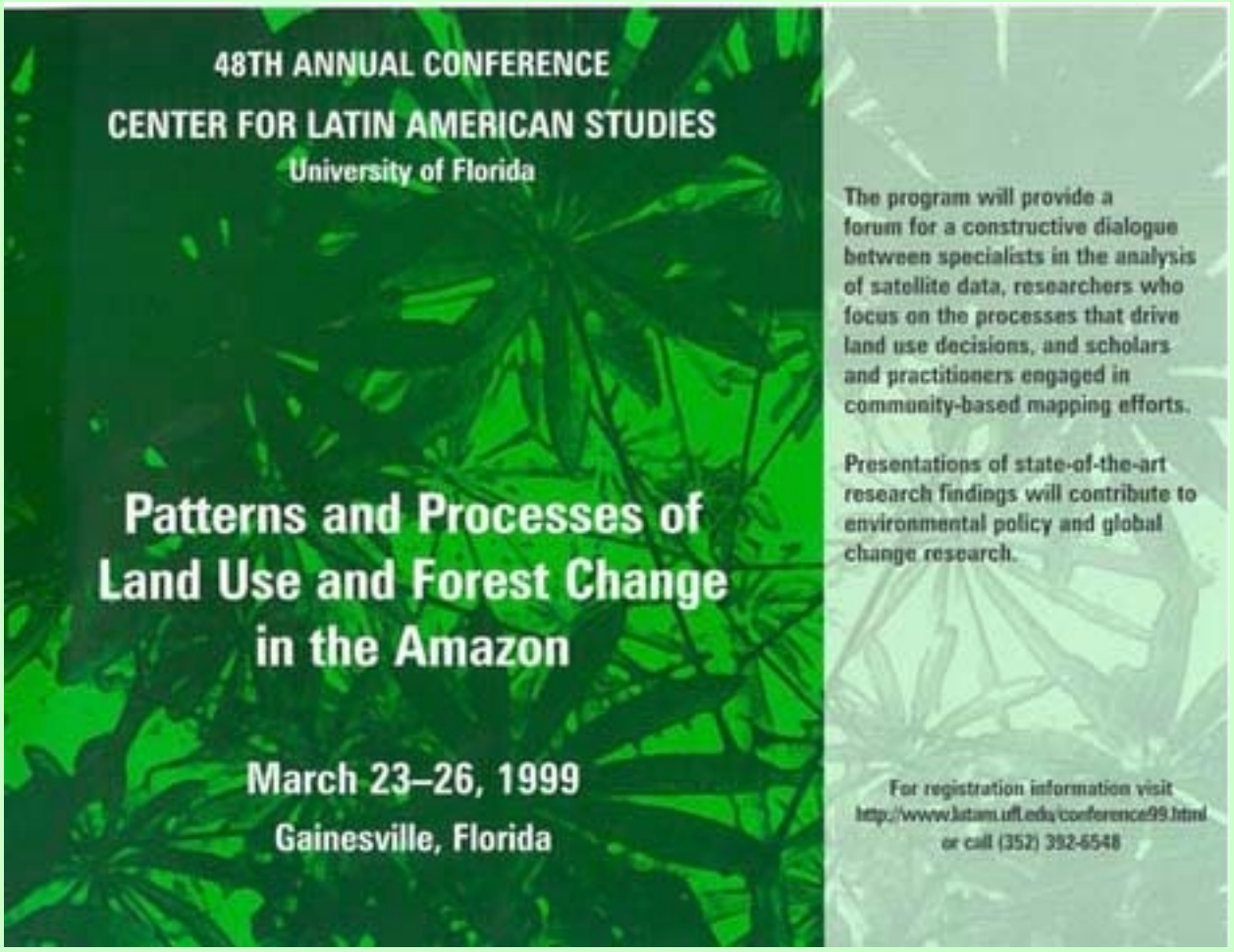
48TH ANNUAL CONFERENCE
CENTER FOR LATIN AMERICAN STUDIES
University of Florida
Patterns and Processes of Land Use and Forest Change in the Amazon
March 23–26, 1999
Gainesville, Florida
The program will provide a forum for a constructive dialogue between specialists in the analysis of satellite data, researchers who focus on the processes that drive land use decisions, and scholars and practitioners engaged in community-based mapping efforts.
Presentations of state-of-the-art research findings will contribute to environmental policy and global change research.
For registration information visit http://www.latam.ufl.edu/conference99.html or call (352) 392-6548

Patterns and Processes of Land Use and Forest Change in the Amazon

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Roberto Porro

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- NASA project at UF
- NASA project at MSU
- Center for Latin American Studies at UF
- Tropical Conservation and Development program (TCD) at UF
- Conservation and Development Forum (CDF) at UF

Patterns and Processes of Land Use and Forest Change in the Amazon

Objective: Promote a dialogue between research communities that focus on:

1. Remote sensing
2. Land use decision-making
3. Participatory community mapping

Keynote Address and Special Presentations

- Carlos Nobre, INPE (Brazil)
  "Regional and Global Impacts of Land Use Change in Amazonia"

- Steven Sanderson, Emory
  "Land Use and Cover Change: Past and Future"

- Diane Wickland, NASA
  "NASA and the LUCC Agenda"

Handouts

1. List of Participants
2. Abstracts of Papers and Presentations

http://www.latam.ufl.edu/conference99.html

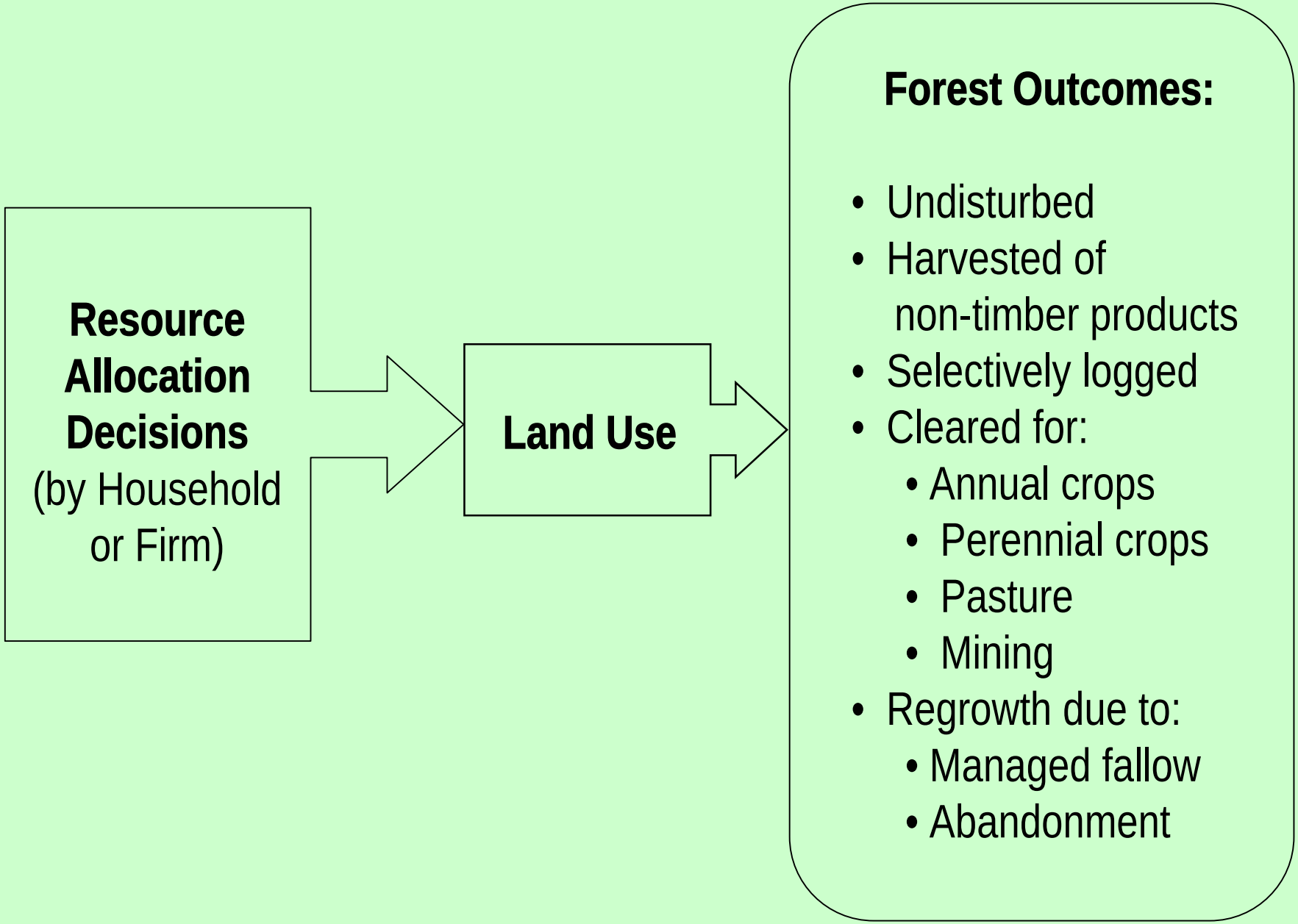
Final Session

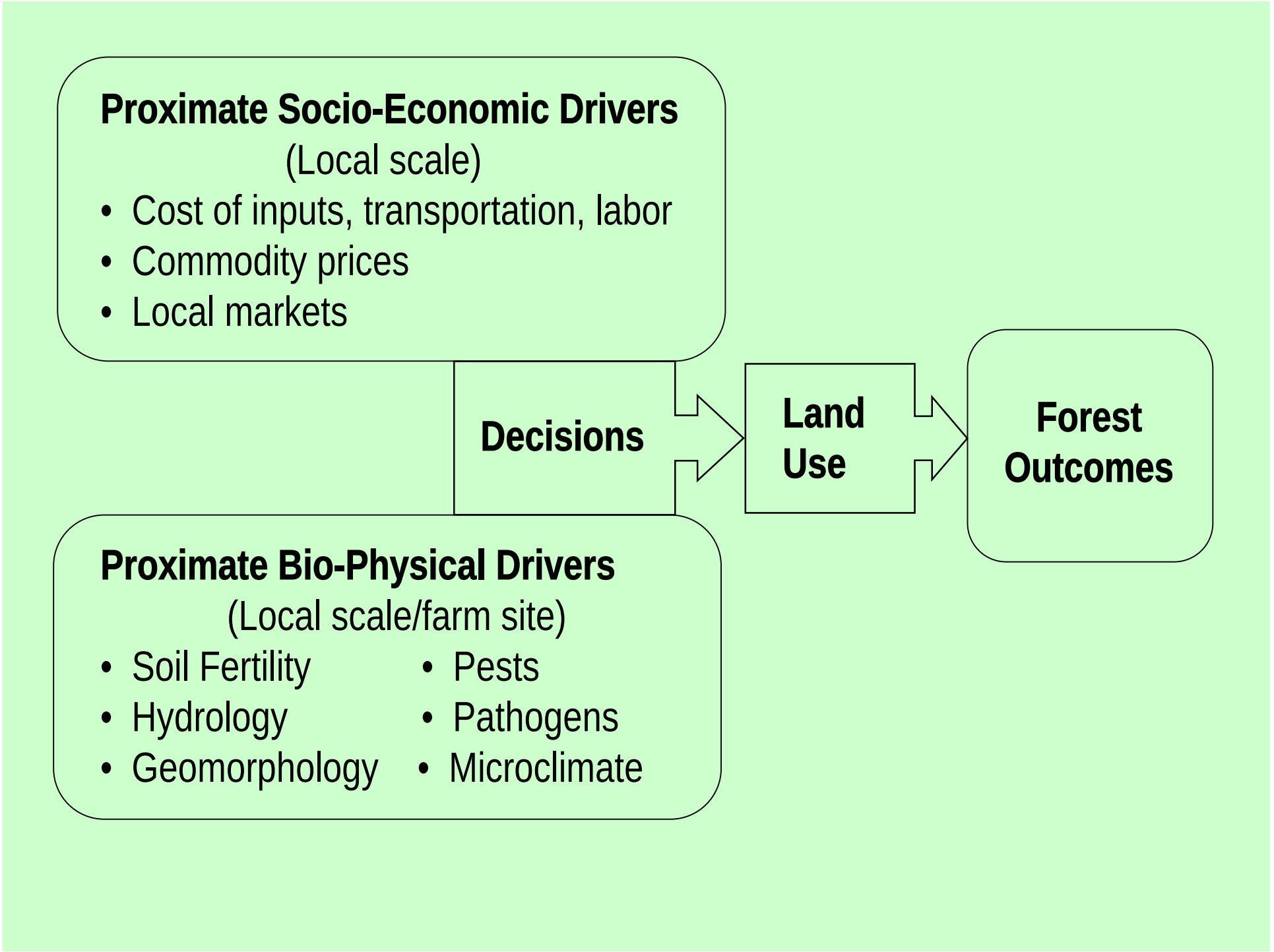
- Open-ended discussion among participants from the three communities

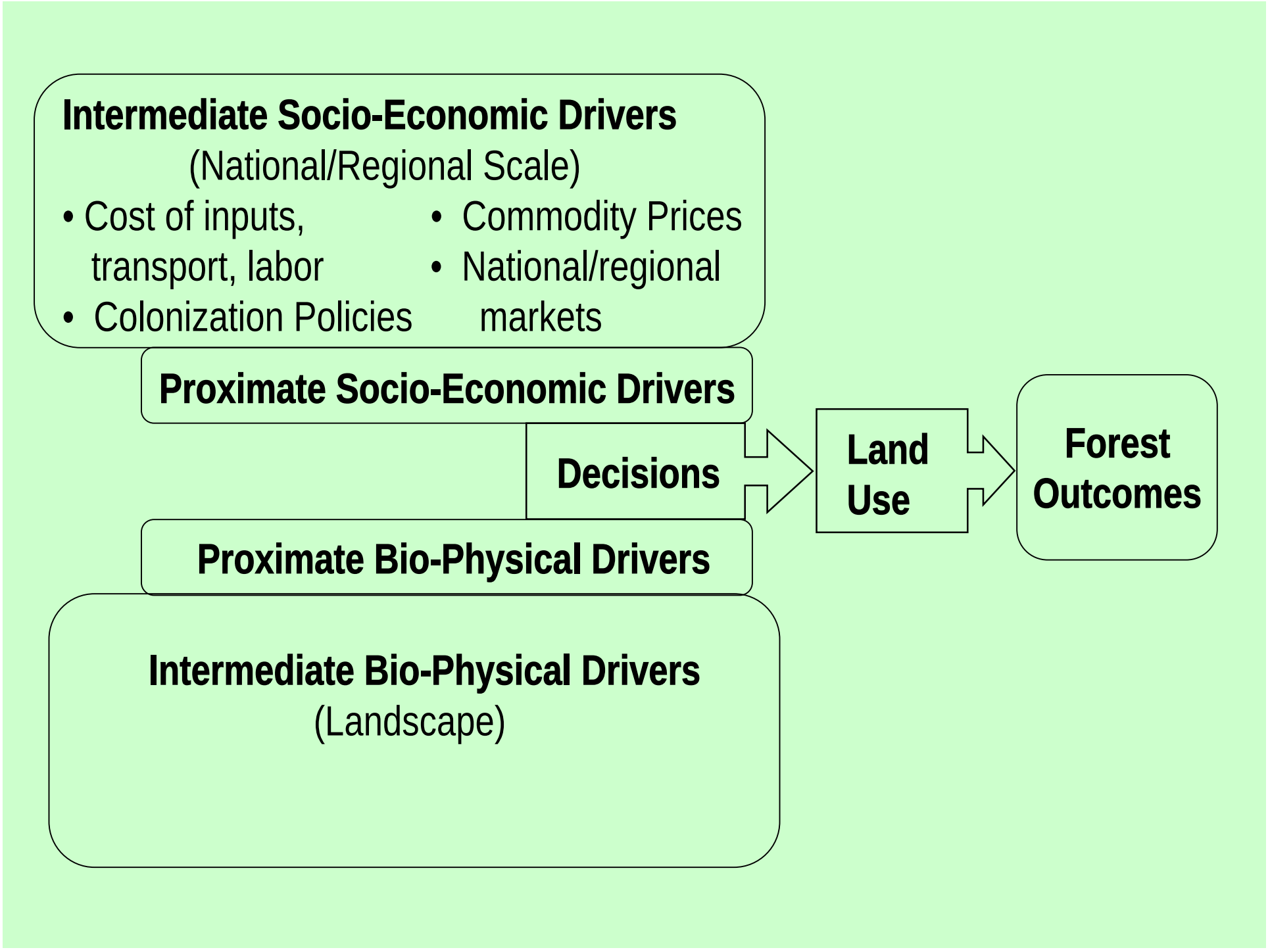
Final Session: Recommendations

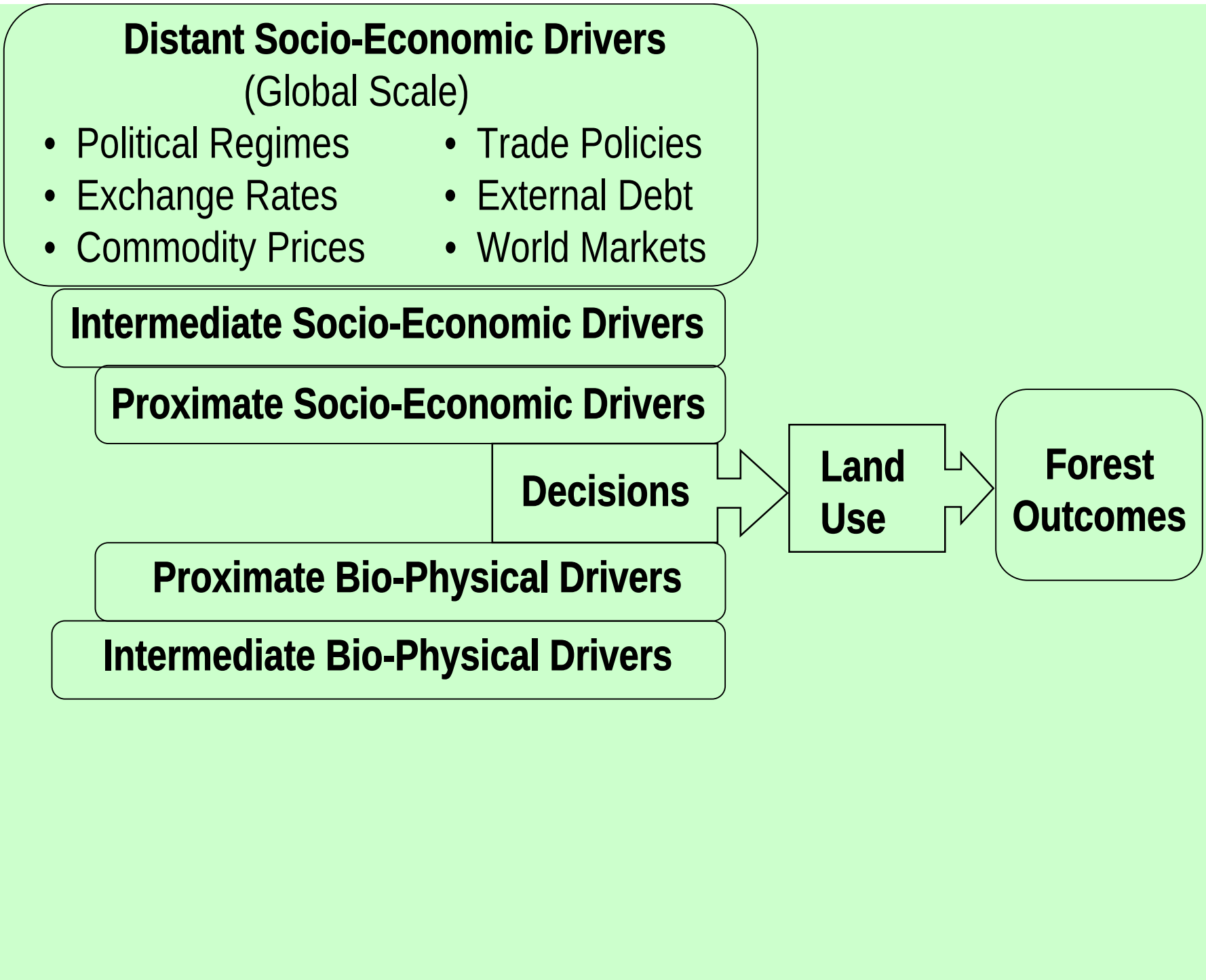
- More fully integrate social sciences
- Broaden scope to include:
  1. Policy makers; policy analysts
  2. Conservation and wildlife ecologists
  3. Forestry and agricultural scientists
  4. Communities living in Amazonia
- Advance conceptual underpinnings of the LUCC agenda

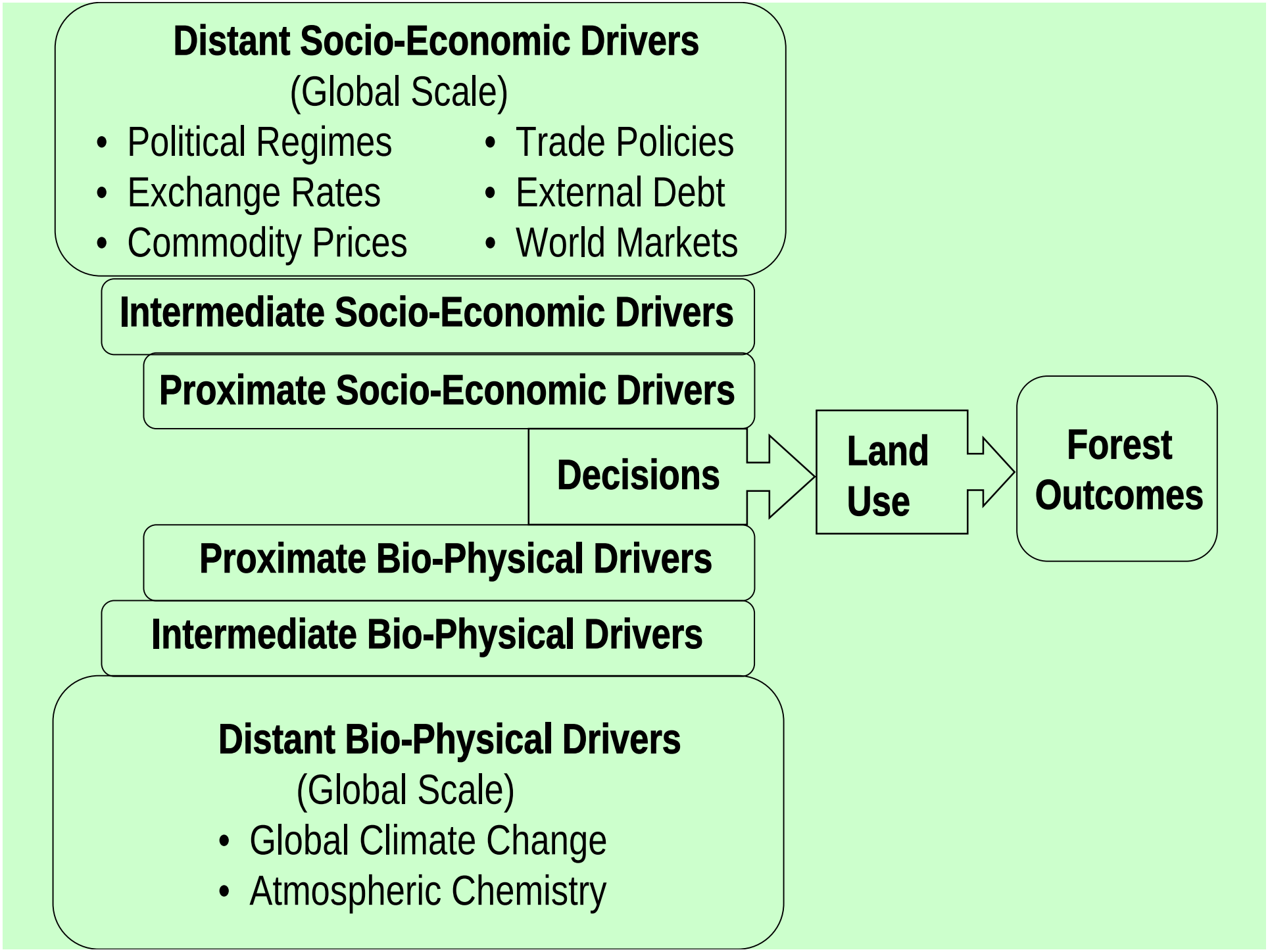
Conceptual Framework: Amazon Forest Change


Resource Allocation Decisions
(by Household or Firm)
Land Use
Forest Outcomes:
• Undisturbed
• Harvested of non-timber products
• Selectively logged
• Cleared for:
• Annual crops
• Perennial crops
• Pasture
• Mining
• Regrowth due to:
• Managed fallow
• Abandonment


Proximate Socio-Economic Drivers
(Local scale)
• Cost of inputs, transportation, labor
• Commodity prices
• Local markets
Decisions
Land Use
Forest Outcomes
Proximate Bio-Physical Drivers
(Local scale/farm site)
• Soil Fertility
• Hydrology
• Geomorphology
• Pests
• Pathogens
• Microclimate


Intermediate Socio-Economic Drivers
(National/Regional Scale)
• Cost of inputs, transport, labor
• Colonization Policies
• Commodity Prices
• National/regional markets
Proximate Socio-Economic Drivers
Decisions
Proximate Bio-Physical Drivers
Intermediate Bio-Physical Drivers
(Landscape)
Land Use
Forest Outcomes


Distant Socio-Economic Drivers
(Global Scale)
• Political Regimes
• Exchange Rates
• Commodity Prices
• Trade Policies
• External Debt
• World Markets
Intermediate Socio-Economic Drivers
Proximate Socio-Economic Drivers
Decisions
Land Use
Forest Outcomes
Proximate Bio-Physical Drivers
Intermediate Bio-Physical Drivers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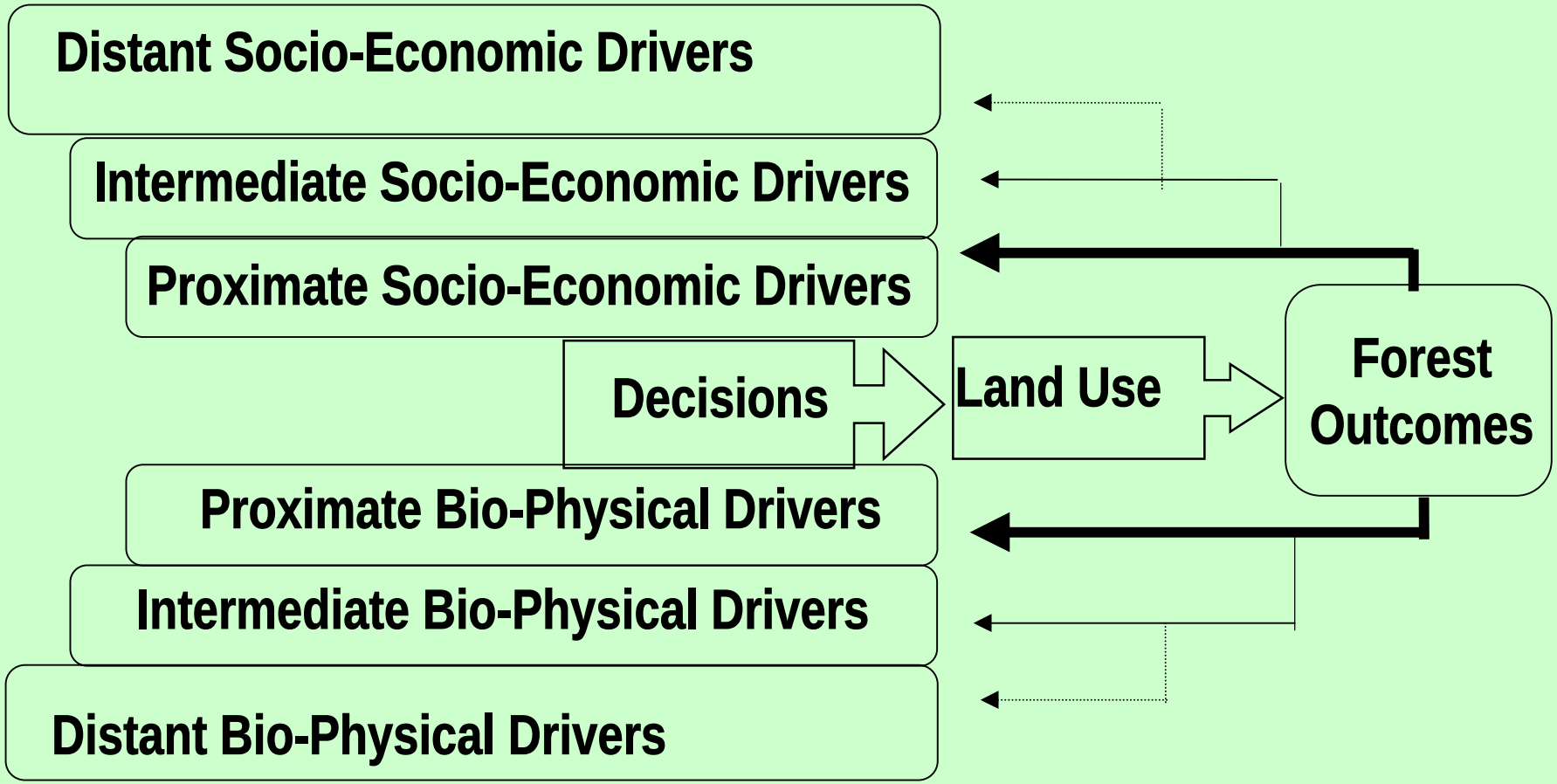
Land Use
Forest Outcomes
Proximate Bio-Physical Drivers
Intermediate Bio-Physical Drivers
Distant Bio-Physical Drivers
(Global Scale)
• Global Climate Change
• Atmospheric Chemistry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Proximate Bio-Physical Drivers
Intermediate Bio-Physical Drivers
Distant Bio-Physical Drivers

Conceptual Challenges

- Conceptualizing complex systems
- Relevance of hierarchy theory

1. Spatial-temporal scales
2. Levels of organization
3. Levels of observation
4. Levels of explanation
5. Relationships between levels

Conceptual Challenges: Final observations

- Hierarchy Theory as an organizing “point of view”
- Testing the applicability of the proposed conceptual framework

Anticipating the Future

- “Scale, scale, scale” D. Skole
- Spatial-temporal “levels” and the relationships between them
- Targeted workshop
  - social sciences
  - remote sensing