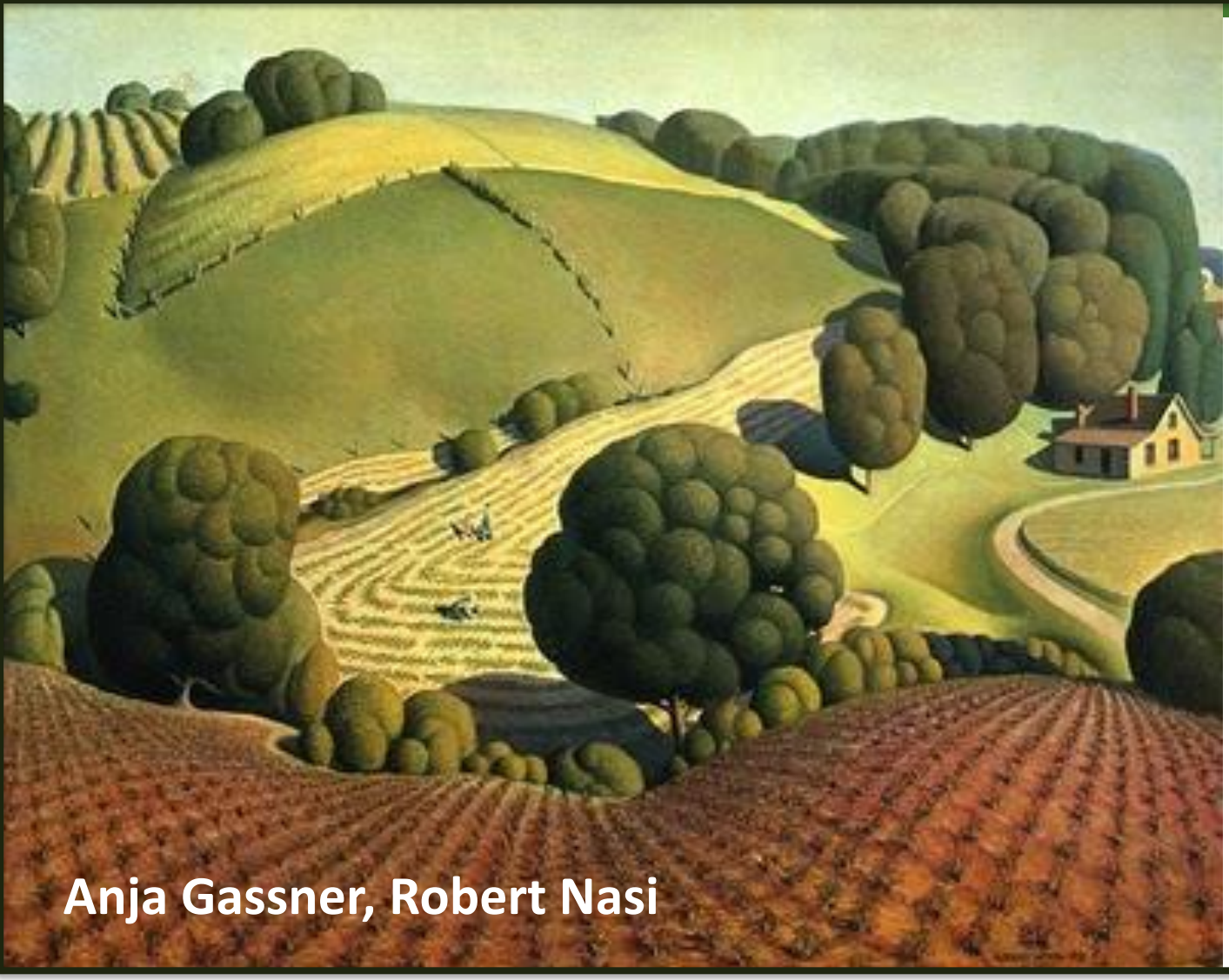

Anja Gassner, Robert Nasi

RESEARCH PROGRAM ON Forests, Trees and Agroforestry

CGIAR

International Long Term Ecological Research Network

CGIAR RESEARCH PROGRAM ON Forests, Trees and Agroforestry

ILTER – a "network of networks"

- Global network of research sites located in a wide array of ecosystems worldwide
- founded in 1993 and involves projects in 32 countries
  - Pattern and control of primary production;
  - Spatial and temporal distribution of populations selected to represent trophic structure;
  - Pattern and control of organic matter accumulation in surface layers and sediments;
  - Patterns of inorganic inputs and movements of nutrients through soils, groundwater and surface waters; and
  - Patterns and frequency of site disturbances. It is not specifically driven by hypotheses, but has a set of network-wide goals (see

Geographical coverage

Africa	East Asia Pacific	Europe	Americas
Malawi	Australia	Austria	USA
Namibia	China	Belgium	Brazil
South Africa	Japan	Bulgaria	Chile
.	South Korea	Czech Republic	Mexico
	Malaysia	Denmark	Venezuela
	Philippines	Finland	
	Taiwan	France	
	Thailand	Germany	
		Hungary	
		Israel	
		Italy	
		Latvia	
		Netherlands	
		Norway	
		Poland	
		Portugal	
		Romania	
		Serbia	
		Slovakia	
		Slovenia	
		Spain	
		Sweden	
		Switzerland	
		United Kingdom	

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Core Strength

- history of long-term, place-based studies;
- its community of scholars committed to integrative research across disciplines and service to society;
- diversity of landscapes, stakeholders, and disturbance regimes
- make it ideally suited to lead scenario (Thompson et al. 2012).

Limitations

- Tendency to think as an individual or as a member of a clan (site) rather than as a participant in a network, and this mindset takes time to evolve.
- First ILTER cohort resisted the concept of network coordination of research quite strongly at first, despite the fact that the importance of collaboration was at least implied in the first call for LTER proposals.
- ILTER network was started by ecologists, integration of social component an afterthought
- High number of sites in pristine ecosystems

Source: Erik Meijaard and Douglas Sheil, 2012

ILTER and Forested Landscapes

Rainforest sites:

- Araucaria Forests of Southern Brazil – Brazil
- Brazilian North Parana state Seasonal Atlantic Forest - Brazil
- CATIE - The Tropical Agricultural Research and Higher Education Center - Costa Rica
- Central Fluminense Mosaic of Parks and Reserves (Mosaico Central Fluminense) - Brazil
- Functional Gradient of Atlantic Forest – Brazil
- Hydrology and Geochemistry of the Amazon basin - HYBAM - France
- Lagamar – Brazil
- Los Tuxtlas Mex-LTER – Mexico
- Luquillo Long-Term Ecological Research - Puerto Rico
- Nanjenshan – Taiwan
- ObsErA - Bras-David - Maison de la Forêt - Guadeloupe
- ObsErA - Capesterre - Prise d'eau - Guadeloupe
- Pasoh Research Forest Reserve - Malaysia
- PELD DO OESTE DO PARÁ (POPA) - Brazil
- PELD Tanguro Ranch - Brazil
- TERN - LTERN - Connell Rainforest Plot Network - Davies Creek - Australia
- TERN Far North Queensland Rainforest SuperSite - Daintree - Australia
- Uatumã Sustainable Development Reserve - Brazil
- Wanang, Papua New Guinea - Czech Republic
- Xishuangbanna Research Station of Tropical Forest - China

Source: ttps://data.lter-europe.net/deims/

Integrating Biophysical & Social Data

3 conceptual Frameworks developed for integrating social science into the long-term ecological research (LTER) sites:

- Drivers-pressures-states-impacts-responses (DPSIR) approach (EEA, 2005, EEA, 2007)
- Press/Pulse (Collins et al., 2011)
- socioeconomic metabolism approach (Haberl)

LTER Europe

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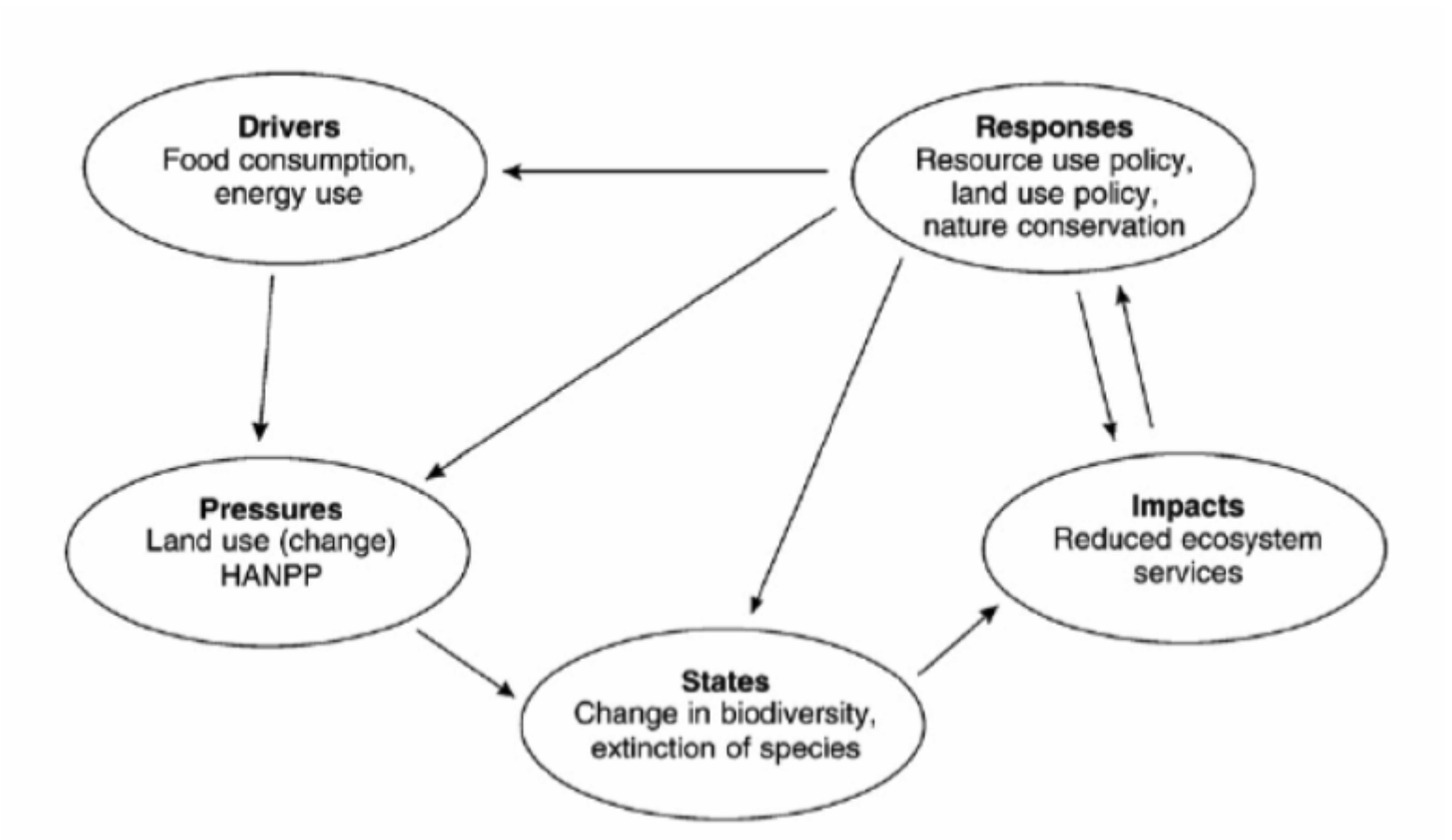
Integrating Biophysical & Social Data

Underlying assumption for ALL 3 frameworks:

"Mitigation of pressures on biodiversity through modification of their underlying socioeconomic

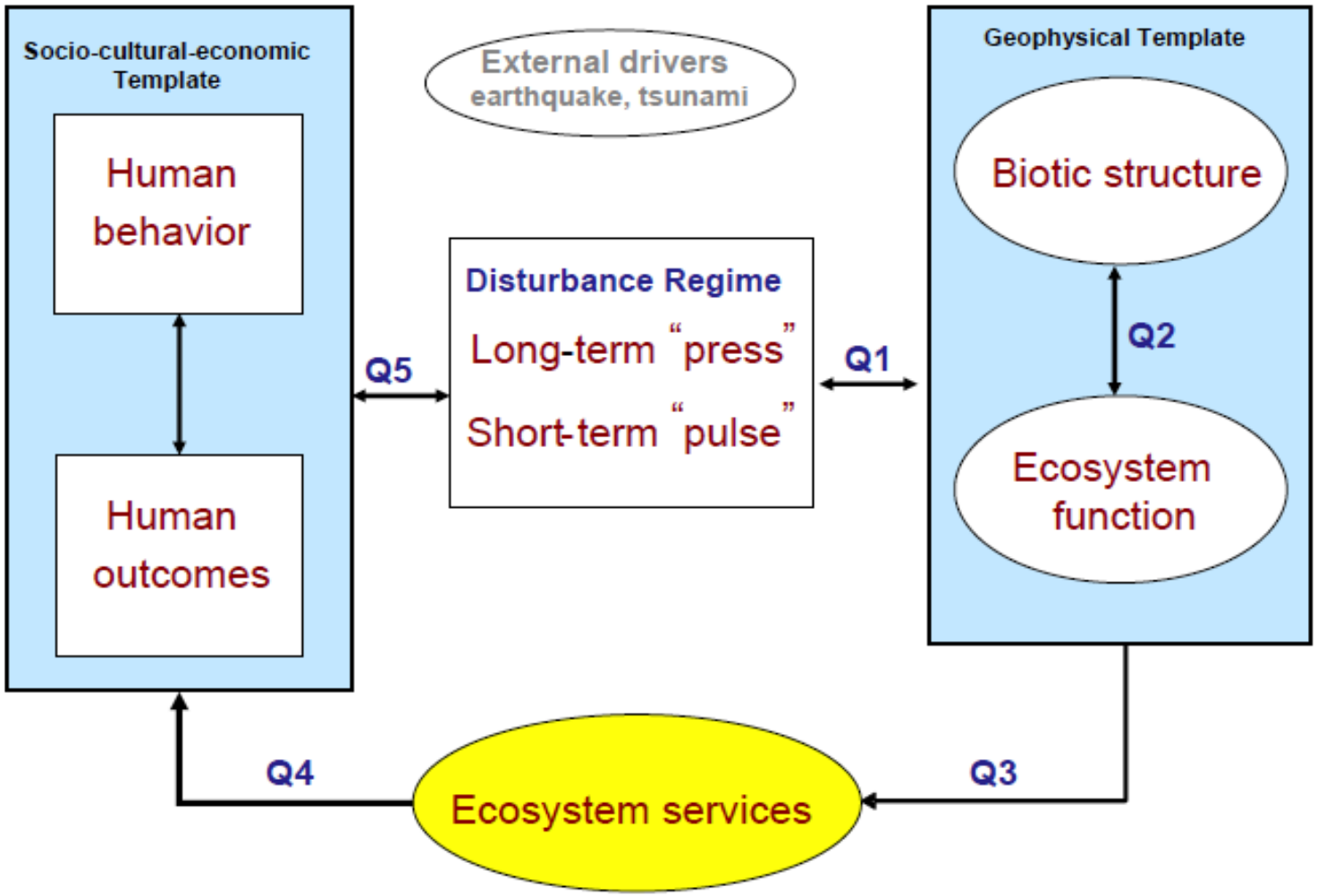
drivers is thought to be the most effective and durable option to reduce the rate of biodiversity loss"

1) Drivers-pressures-states-impacts-responses (DPSIR) approach



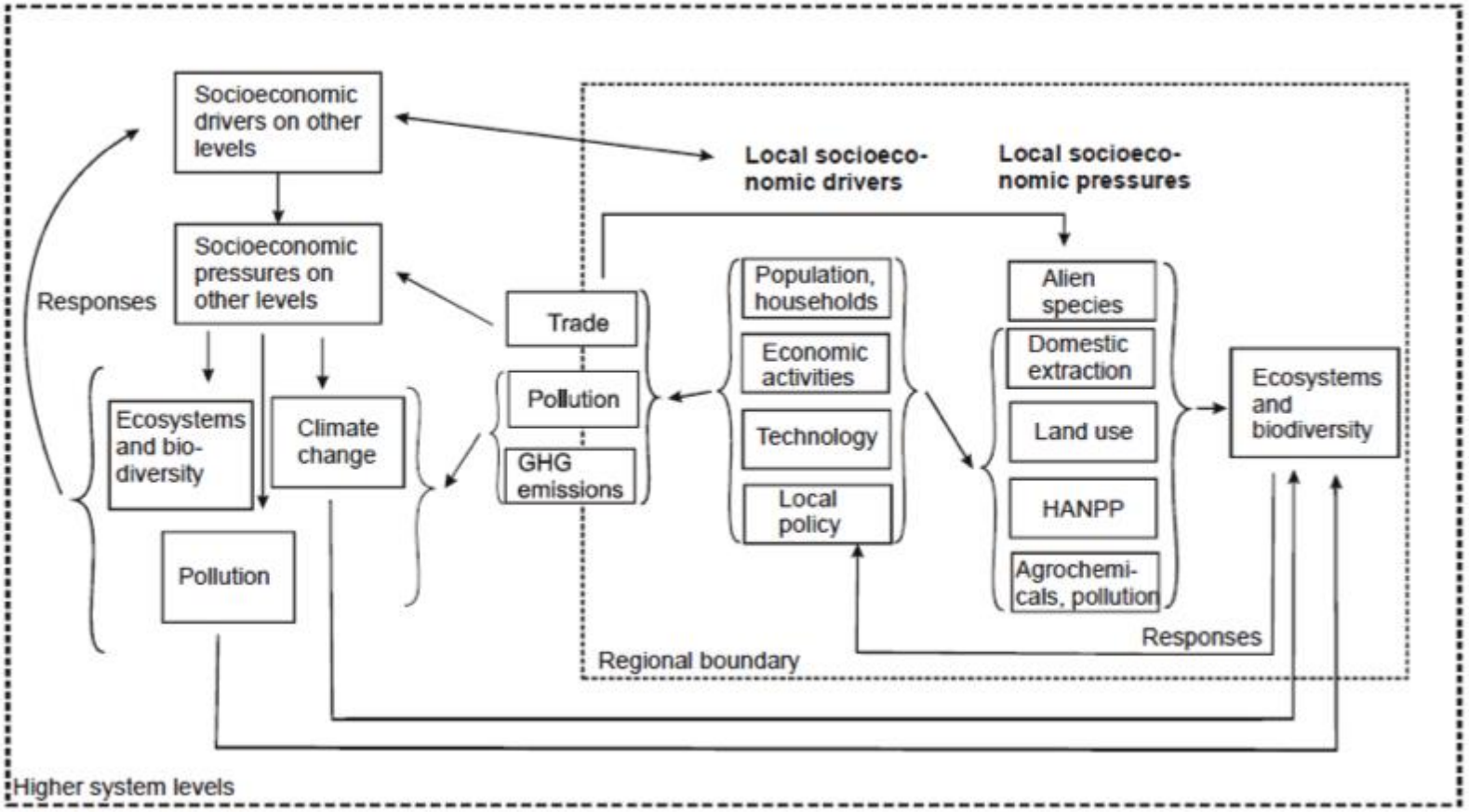
Used in CRP6 Component 3: Van Noordwijk, M., B. Lusiana, G. Villamor, H. Purnomo, and S. Dewi. 2011. Feedback loops added to four conceptual models linking land change with driving forces and actors. Ecology and Society 16(1): r1. [online] URL: http://www.ecologyandsociety.org/vol16/iss1/resp1/

2) Press and Pulse Model



An integrated conceptual framework for long-term social–ecological research, Collins et al., 2011

2) Adding Social Metabolism as pressure factor



Human appropriation of net primary production" (HANPP) is a measure of socioecological material flows. (Haberl et al., 2001, Haberl et al., 2007a)