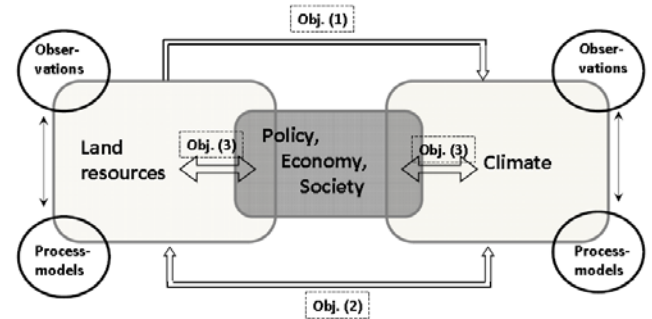




# LUC4C - Land-use change: assessing the net climate forcing, and options for climate change mitigation and adaptation

## OBJECTIVES

- enhance our ability to understand the societal and environmental drivers of land-use and land-cover (LULCC) change relevant to climate change, and assess regional and global effects of different land-based mitigation policies and adaptation measures within alternative socio-economic contexts;
- (2) advance our ability to represent LULCC in climate models and quantify how the LULCC-climate change interplay affects global vs. regional, and biophysical vs. biogeochemical ecosystem-atmosphere exchange;
- (3) assess LULCC-climate effects on multiple ecosystem services and analyse these in relation to other societal needs that provide either a synergy or trade-off to land-based climate mitigation and adaptation.



## SOME (select) PROJECT ACTIVITIES

Develop scenarios for land-based climate change mitigation, based on SSPs

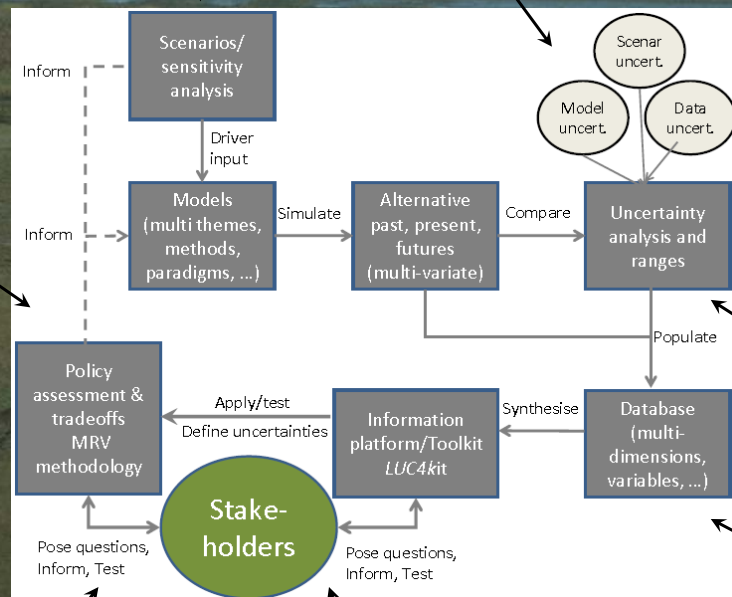
Performance of DGVMs in assessing LULCC-mediated climate impacts; assess ESM capacity in detecting observed changes in *bph* and *bgc* land properties

Identify indirect effects and trade-offs of land-use-based mitigation options

Good practice guidance on MRV incorporating

Synthesis of the potential effects of current and anticipated future land-use and -mitigation policy on the climate system

An analytic and model-based exploration of land system change as a mitigation option, also including adaptation



Land-use change model intercomparison

Quantification of the impact of changing methodology to incorporate LULCC on the modelled carbon cycle and climate

Methodology to incorporate land-use changes provided by IAMs and/or land-use models into ESMs

- EU FP7 Integrated project: 603542 – LUC4C
- Duration 48 months, starting 1 Nov. 2013
- 15 Partners from 11 EU and non-EU countries
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