Nitrogen Cycle in Land components

Drivers of land
CO_2 and N_2O fluxes
Over the 20th century

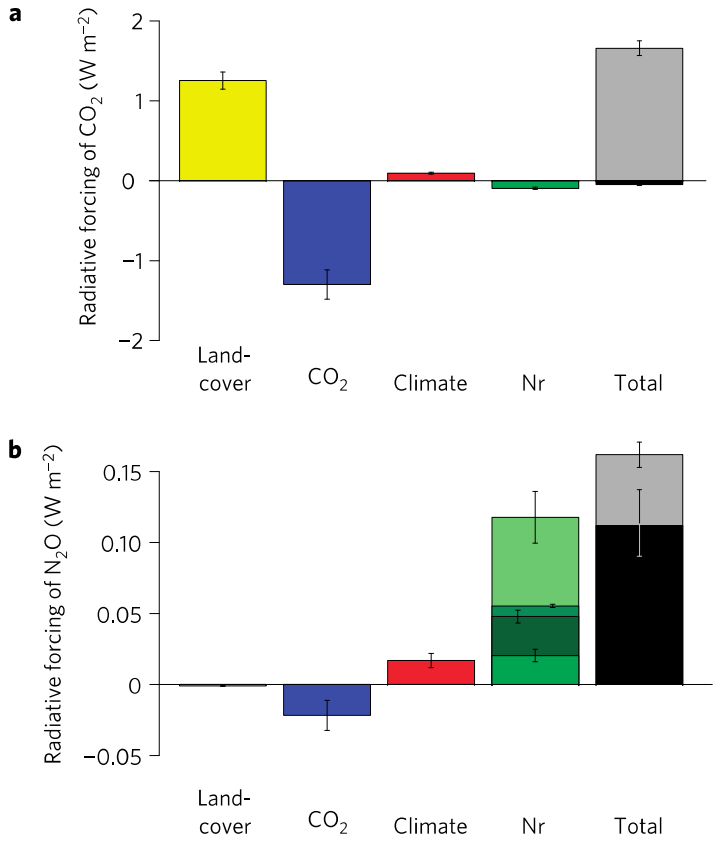
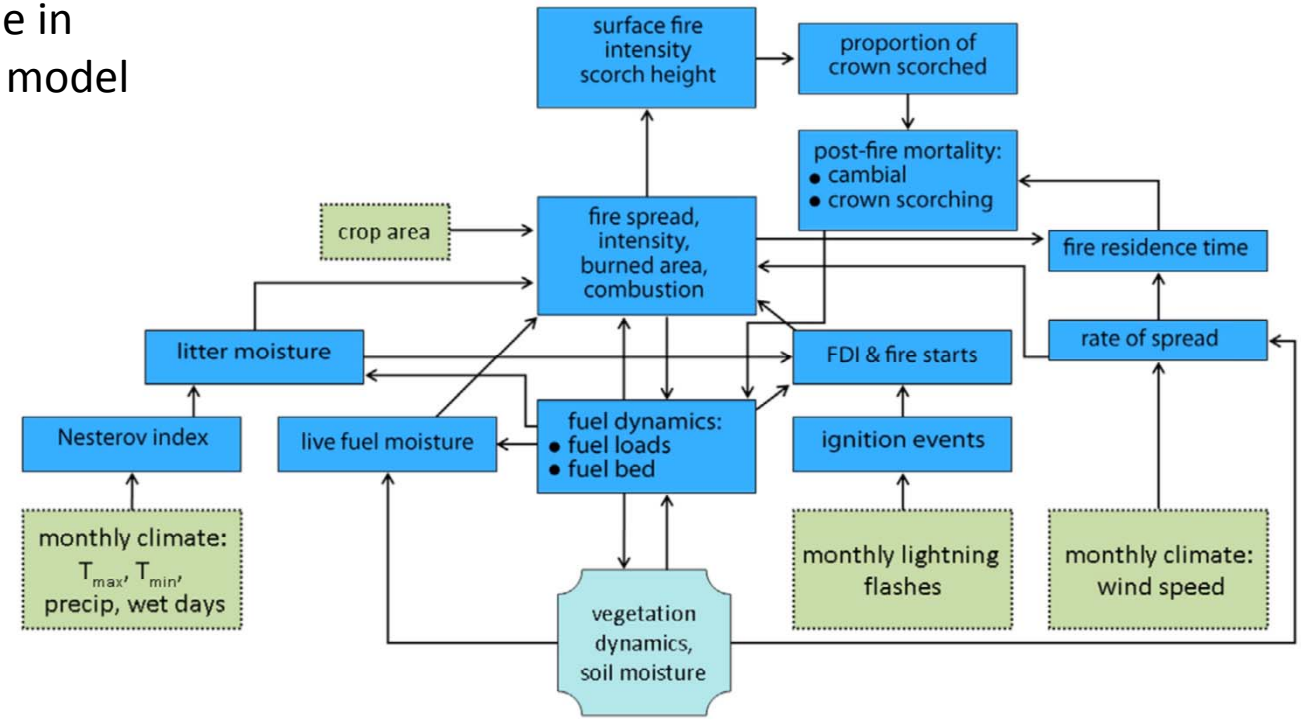


Figure 4 | Contribution of the anthropogenic Nr and other terrestrial ecosystem changes to present-day radiative forcing. Radiative forcing of **a**, CO_2 and **b**, N_2O in the year 2005. Distinguished are the marginal biogeochemical effects of changes in land-cover (yellow), CO_2 fertilization (blue), climate change (red), and Nr additions (green; from bottom to top: nitrogen deposition, nitrogen fertilizer, riverine, manure) on the atmospheric concentrations of CO_2 and N_2O. The black bar denotes the total terrestrial forcing and the grey bar the observed radiative forcing[30]. Error bars denote uncertainty ($\pm 1\sigma$) in radiative forcing estimates (see Methods and Supplementary Information).

Zaehle et al., 2011

Vegetation mortality and disturbances

Fire module in
Land surface model



Prentice et al., 2011

Vegetation mortality and disturbances

Evaluation of area burned
against
Remote sensing data (GFED3)

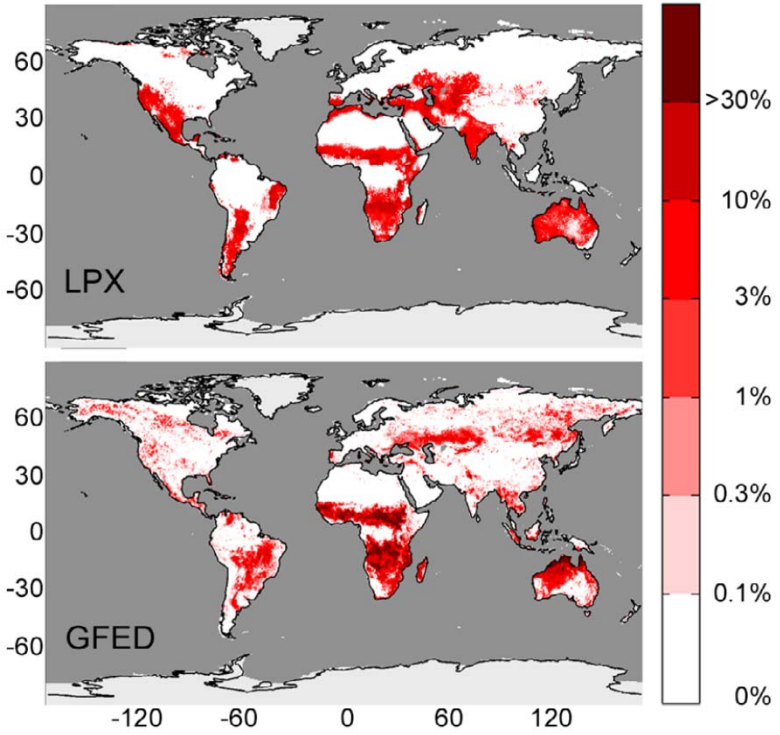
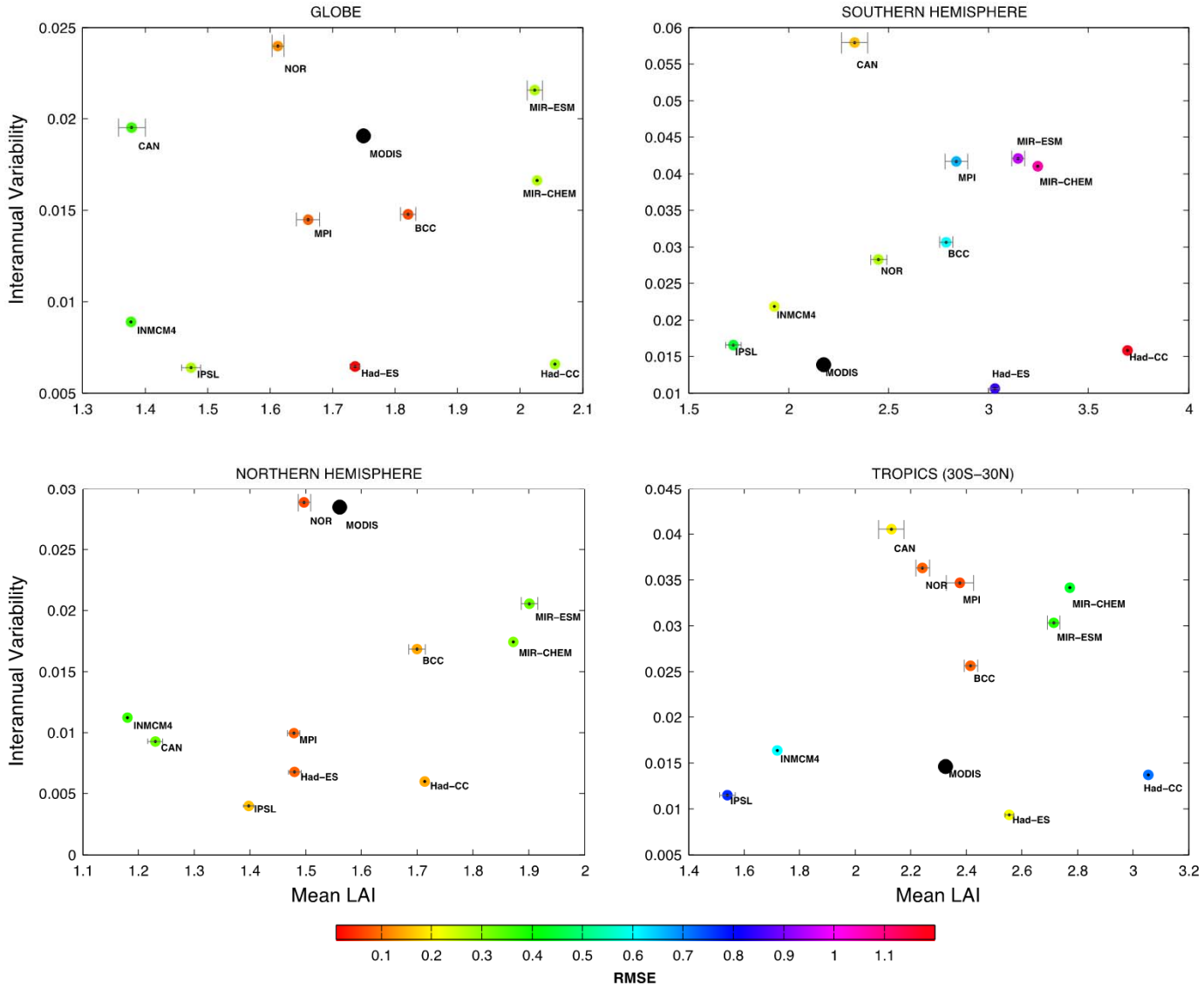


Figure 2. Annual fractional burnt area (averaged over 1997–2005) (top) as simulated by LPX and (bottom) as shown by GFED3.

Prentice et al., 2011

CMIP5 models Evaluation

CMIP5 models LAI
vs.
MODIS LAI



Anav et al.,in prep