

Table S1. Modeled statistics of (a) biomass and (b) soil carbon. Average and standard deviation are calculated based on outputs from six models (LPJ, SEIB, TRIFFID, Biome-BGC, VISIT and CASA). Units are kgC m⁻².

(a) Biomass

	FJY	TKY	TMK	TSE
Original Model	14.3±18.7	18.1±23.0	17.7±19.7	15.0±20.1
Improved Model	15.1±7.7	17.2±13.9	19.5±12.9	16.9±17.3

(b) Soil Carbon

	FJY	TKY	TMK	TSE
Original Model	11.7±9.0	23.1±18.5	17.5±11.6	18.7±11.7
Improved Model	13.2±8.3	21.7±11.6	22.6±10.0	22.9±15.6

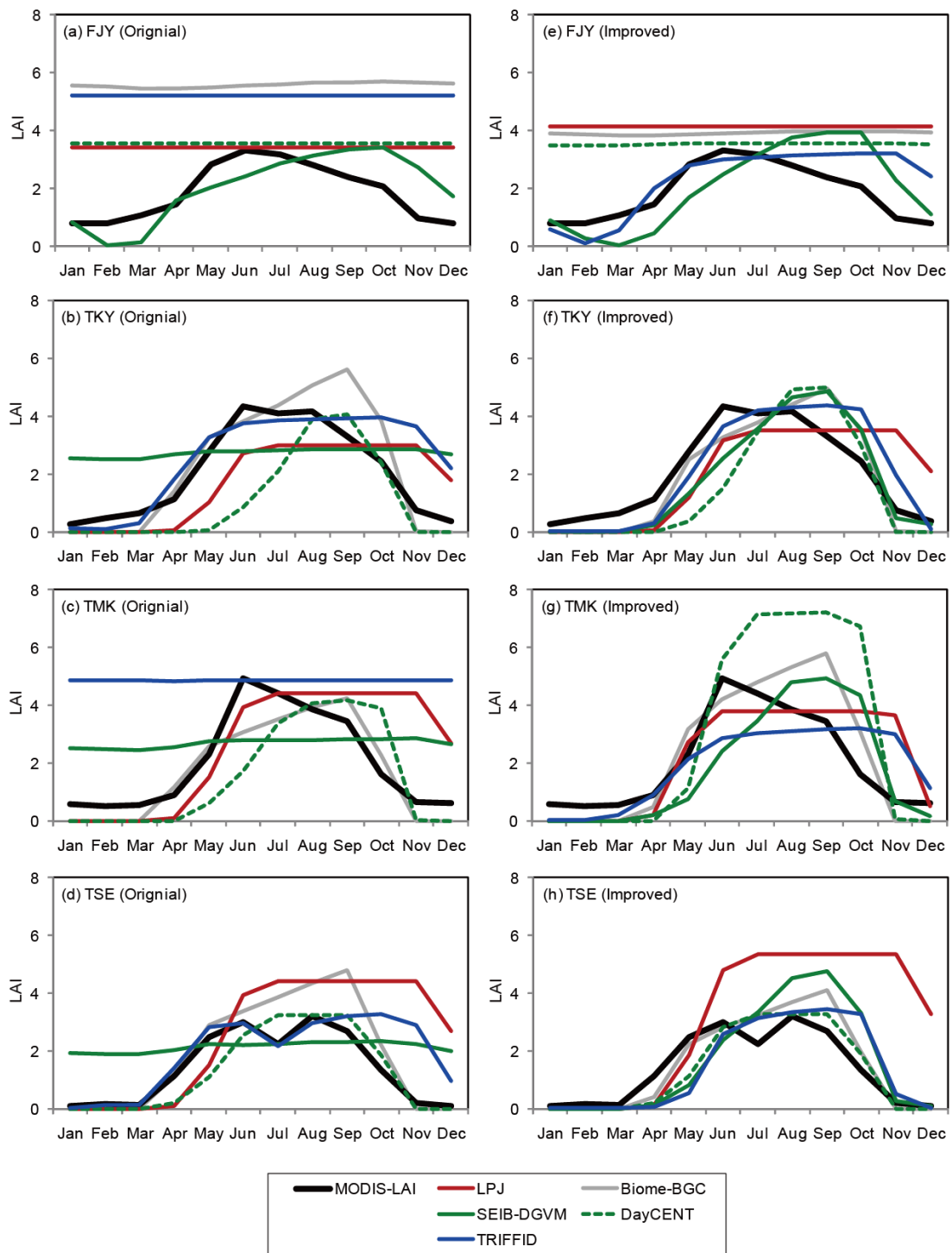


Figure S1. Seasonal variation in LAI at four flux sites from satellite observations (MODIS product) and five ecosystem models of both default and improved settings). Monthly variations over the observation period are shown. MODIS LAI data are used as inputs for TOPS and CASA models.