

Simulation (years)	GHG ¹ forcing	Emissions	SST ² and sea ice	Meteorology
CESM-REFC1SD (1992–2010)	CMIP5 ³ (updated until 2010)	Anthropogenic and biomass burning emission: MACCity ⁴ Biogenic emissions: MEGAN2 ⁵	HadISST2 ⁶	MERRA ⁷
GCM2000 (2006–2025)	CO ₂ = 369 ppm. Other GHG from REFC1SD.	Anthropogenic and biomass burning from AR5 ⁸ . Biogenic emissions: Monthly values from MEGAN2 for 2000	Online	Online
GCM2100 (2106–2125)	CO ₂ = 669 ppm. Other GHG as in GCM2000.	GCM2000	Online	Online