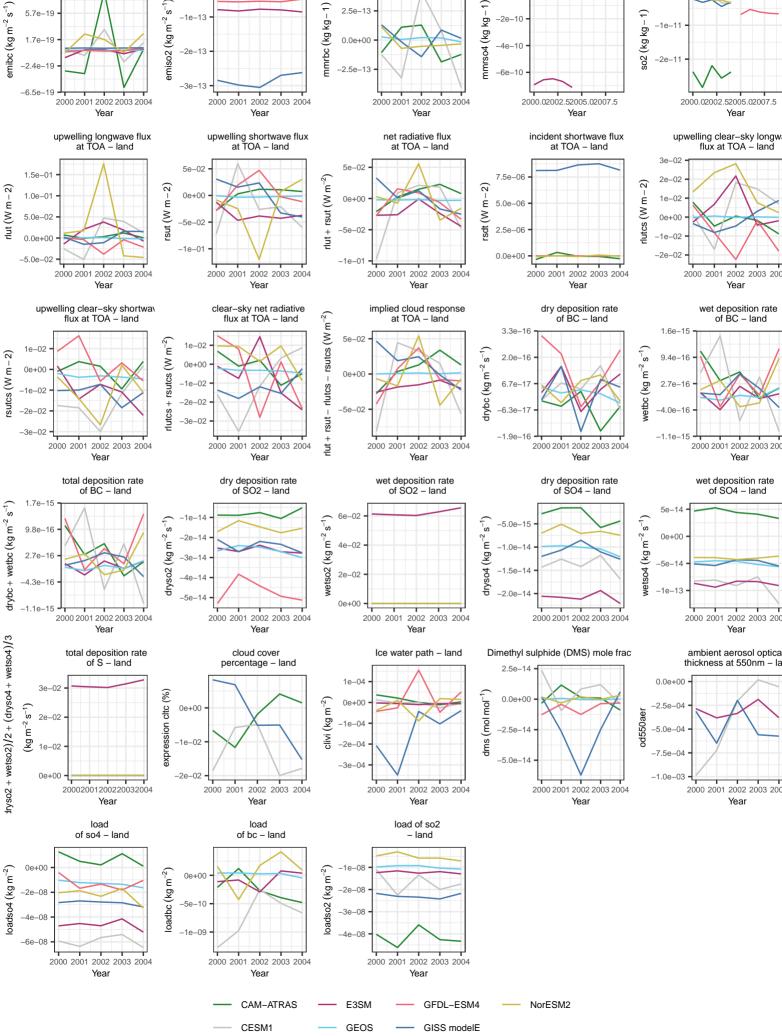
shp-30p-red: absolute difference surface flux of SO2 – land surface concentration surface concentration of SO4 – land surface concentration of SO2 – land mmrso4 (kg kg-1) nmrbc (kg kg-1) so2 (kg kg – 1) 0.0e+00 -2.5e-13 2002 2003 2004 2000 2001 2002 2003 2004 2000.02002.52005.02007.5 2000.02002.52005.02007.5 2000 2001 Year Year Year Year upwelling shortwave flux at TOA – land net radiative flux at TOA – land incident shortwave flux at TOA – land upwelling clear-sky longwav flux at TOA - land 5e-02 7.5e-06 $lut + rsut (W m^{-2})$ 5 sdt (Wm-2)rlutcs (W m-0e+00 0e+00 5.0e-06 0e+00 -5e-02 -5e-02 2.5e-06 -1e-01-2e-02 0.0e+00 -1e-01 2000 2001 2002 2003 2004 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 Year Year Year Year clear-sky net radiative flux at TOA - land implied cloud response at TOA – land dry deposition rate of BC – land wet deposition rate of BC – land rlutcs - rsutcs (W m⁻²) 1 6e-15 5e-02 1e-02 vetbc (kg m⁻² s⁻¹) 2.0e-16 9.4e-16 drybc (kg m⁻² s⁻ 0e+00 0e+00 -1e-02 6.7e--2e-02 -5e-02 rsut – -3e-02 rlut + 2000 2001 2002 2003 2004 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 Year Year Year Year dry deposition rate of SO2 – land wet deposition rate of SO2 – land dry deposition rate of SO4 – land wet deposition rate of SO4 – land wetso2 $(kg m^{-2} s^{-1})$ wetso4 (kg m⁻² s⁻¹ 0e+00dryso4 (kg m⁻² 4e-02 2e-02 0e+002000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year Year Year cloud cover Ice water path - land Dimethyl sulphide (DMS) mole frac ambient aerosol optical thickness at 550nm - land percentage - land 0.0e+00 1e-04 m^{-2} _lom lom) smb 0e+00 clivi (kg r -1e-04-1e-02 -2e-04 -7.5e-04 -3e-04 2002 2003 2004 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2000 2001 Year Year Year Year load load of so2 of bc - land land loadso2 (kg m⁻²) -5e-10



surface flux of BC – land

9.86-19