shp-atl-shift: absolute difference surface flux of BC – indian surface flux of SO2 – indian surface concentration of SO4 – indian surface concentration surface concentration of SO2 – indian 1.2e-20 0.0e+00 5 0e-13 mmrso4 (kg kg – 1) emibc $(kg m^{-2} s^{-1})$ nmrbc (kg kg-1) əmiso2 (kg m $^{-2}$ s $^{-1}$ _3 1e_21 (kg kg – 1) 0.0e+00 -1.8e-20 -5.0e-13 -1.5e-12 -3.3e-20 -2.0e-12 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year Year Year Year upwelling longwave flux at TOA – indian upwelling shortwave flux at TOA – indian incident shortwave flux at TOA – indian upwelling clear-sky longway flux at TOA - indian net radiative flux at TOA - indian 3e+00 00+00 0.0e + 0.0e +rsut (W m⁻² rlutcs (Wm-2)rlut (Wm-2)(W m - 2)rsdt (Wm-2)-1e+00 1e+00 -3e+00 -1e-06 0e+00 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2002 2003 2004 2002 2003 2004 2000 2001 2000 2001 2000 2001 Year Year Year Year Year upwelling clear-sky shortwa flux at TOA – indian clear-sky net radiative flux at TOA - indian implied cloud response at TOA – indian dry deposition rate of BC – indian wet deposition rate of BC – indian rsutcs (W m^{-2}) 0.0e+00 2.0e-14 rsutcs $(W m^{-2})$ wetbc (kg m^{-2} s⁻¹) rsutcs (W m-2) drybc (kg m⁻² s⁻ 4.0e-0 rlutcs --4e-01 -8.0e-01 5 0e-15 -6e-01 rsut 0.0e+0.0-1.2e+00 r H H 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year Year Year Year total deposition rate of BC – indian dry deposition rate of SO2 – indian wet deposition rate of SO2 – indian dry deposition rate of SO4 – indian wet deposition rate of SO4 – indian $drybc + wetbc (kg m^{-2} s^{-1})$ wetso2 (kg m^{-2} s⁻¹. $dryso4 (kg m^{-2} s^{-1})$ $\rm wetso4~(kg~m^{-2}~s^{-1}$ 1.0e-02 -1e-14 -4e-12 5.0e-03 -2e-14 0.0e+002000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year Year Year Year dyso2 + wetso2)/2 + (dyso4 + wetso4)/3total deposition rate of S – indian cloud cover Ice water path - indian Dimethyl sulphide (DMS) mole fractic ambient aerosol optical percentage - indian thickness at 550nm - india 9e-02 1e-13 cltc (%) clivi (kg m⁻²) _lom lom) smp 6e-02 $(kg m^{-2} s^{-1})$ expression 0e+00 0e+00 3e-02 2e-03 0e+00 0e+0020002001200220032004 2002 2003 2004 2002 2003 2004 2002 2003 2004 2000 2001 2000 2001 2000 2001 2002 2003 2004 2000 2001 Year Year Year Year Year SO4 lifetime SO₂ lifetime load load load of so2 of so4 - indian of bc - indian indian indian indian wetso4) (days 4e-08 oadso2/emiso2 (days 1e-07 loadso4 (kg m⁻²) oadbc $(kg m^{-2})$ oadso2 $(kg m^{-2})$ 5e-08 2e-08 oadso4/(dryso4+ 0e+00 1e-08 2002 2003 2004 2000 2001 2002 2003 2004 2001 2002 2004 Year Year Year Year Year NorESM2 CAM-ATRAS F3SM GFDI -FSM4

CESM1

GEOS

GISS modelE