bc-no-season: absolute difference surface flux of BC – NH–indian surface flux of SO2 – NH-indian surface concentration of SO2 – NH–indian surface concentration surface concentration of SO4 – NH-indian 0.0e+00 0e+00 -5 0e-12 $\mathrm{emibc}\,(\mathrm{kg}\,\mathrm{m}^{-2}\,\mathrm{s}^{-1})$ emiso2 $(kg m^{-2} s^{-1})$ mmrbc (kg kg⁻¹ mmrso4 (kg kg so2 (kg kg⁻¹ -1.0e-11 5.2e-17 00+00 2001 2002 2003 2001 2002 2003 2001 2002 2003 2001 2002 2003 2001 2002 2003 Year Year Year Year Year longwave flux at TOA – NH–indian shortwave flux at TOA – NH–indian net radiative flux at TOA – NH–indian incident shortwave flux at TOA – NH-indian clear-sky longwave flux at TOA - NH-indian 1.0 0.0e+00 0.5 rlut + rsut $(W m^{-2})$ 0.2 rlutcs (W m⁻²) rlut $(W m^{-2})$ $rsut(Wm^{-2})$ $rsdt (W m^{-2})$ 0.0 0.0 4.0e-07 0.1 0.0 -0.5 _8 0e_07 -0.2 -0.5 -0.1 -1.0 2001 2002 2003 2001 2003 2001 2002 2003 2002 2003 2001 2003 Year Year Year Year Year clear-sky shortwave clear-sky net radiative implied cloud response dry deposition rate wet deposition rate flux at TOA - NH-indian flux at TOA - NH-indian at TOA - NH-indian of BC - NH-indian of BC - NH-indian rlut + rsut - rlutcs - rsutcs (W m $^{-2}$) 0e+00 0e+00 0.05 rlutcs + rsutcs (W m⁻²) 0.2 0.2 $drybc (kg m^{-2} s^{-1})$ wetbc $(kg m^{-2} s^{-1})$ rsutcs $(W m^{-2})$ 0.00 0.0 0.0 -0.05 -0.2 -0.10 2003 2001 2003 2001 2002 2003 2001 2003 2001 2002 2003 2001 2002 Year Year Year Year Year total deposition rate of BC – NH–indian dry deposition rate of SO4 – NH–indian dry deposition rate wet deposition rate wet deposition rate of SO2 - NH-indian of SO2 - NH-indian of SO4 - NH-indian 6e-13 $drybc + wetbc (kg m^{-2} s^{-1})$ $dryso2 (kg m^{-2} s^{-1})$ wetso2 $(kg m^{-2} s^{-1})$ $dryso4 (kg m^{-2} s^{-1})$ wetso4 $(kg m^{-2} s^{-1})$ 2e-14 -5.0e-14 0e+00 -1.0e-13 0e+00 0e+00 00+00 2001 2002 2003 2004 2001 2002 2003 2001 2002 2003 2004 2001 2002 2003 2004 2001 2002 2003 Year total deposition rate of S – NH–indian ambient aerosol optical convective cloud cover total cloud cover (dryso2 + wetso2)/2 + (dryso4 + wetso4)/3thickness at 550nm - NH-india percentage - NH-indian percentage - NH-indian 0.5 -0.05 $(kg m^{-2} s^{-1})$ 0.0 clt (%) cltc -0.5 -0.025 -0.050 -1 0 2001 2002 2003 2004 2002 2003 2002 2003 2004 2002 2001 2004 2001 2001 2003 2004 Year Year Year Year

CFSM1

CESM2

F3SM

GEOS

GFDI

GISS

MIROC

NorESM2

OsloCTM3

UKESM