NH-indian: absolute difference surface flux of BC – shp–ind–shift surface flux surface concentration surface concentration surface concentration of SO2 - shp-ind-shift of BC - shp-ind-shift of SO4 - shp-ind-shift of SO2 - shp-ind-shift 0e+00 1.2e+02 3.5e+01 1e+01 2e-01 Δ emibc ∆ mmrbc 1 802 3.0e+01 0e+00 -8e-06 -01 6.0e+01 6e+00 2.0e+01 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2002 2003 2004 2002 2003 2000 2001 2002 2003 2004 2000 2001 2000 2001 Year Year Year Year Year upwelling longwave flux at TOA – shp–ind–shift upwelling shortwave flux at TOA – shp-ind-shift incident shortwave flux at TOA – shp-ind-shift upwelling clear–sky longwav flux at TOA – shp–ind–shif net radiative flux at TOA - shp-ind-shift 5 0e-02 0e+00 1.0e + 0.00e+00 -1e-01 7.5e-01 -2e-01 0.0e + 00ŧ 4e-01 -3e-01 -2 5e-02 2e-01 -4e-0 -5.0e-02 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 clear-sky shortwave clear-sky net radiative implied cloud response dry deposition rate wet deposition rate flux at TOA - shp-ind-shift flux at TOÁ - shp-ind-shift at TOA - shp-ind-shift of BC - shp-ind-shift of BC - shp-ind-shift rsutcs) 5.0e-01 7e-01 rsutcs 4e-01 6e-01 rlutcs -0e+00 Δ rsutcs drybc ∆ wetbc 5e-01 2e-01 -1e-01 0.0e+00 4ersut 0e+00 -2e-01 -2.5e-01 rlut + 3e-01 -2e-01 -3e-01 2e-01 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 wet deposition rate of SO4 – shp-ind-shift dry deposition rate of SO4 – shp–ind–shift total deposition rate of BC – shp-ind-shift dry deposition rate of SO2 – shp–ind–shift wet deposition rate of SO2 – shp–ind–shift 2e-01 4.6e+01 2.6e+01 drybc + wetbc 0e+00 ∆ wetso2 ∆ wetso4 ∆ dryso4 4.5e+01 2.5e+01 1.0e+01 8e+00 4 4e+01 2.4e+01 -4e-01 6e+00 4 4e+01 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 dryso2 + wetso2)/2 + (dryso4 + wetso4)/3Ice water path - shp-ind-spimethyl sulphide (DMS) mole fraction total deposition rate cloud cover ambient aerosol optical thickness at 550nm - shp-ind-shif of S - shp-ind-shift percentage - shp-ind-shi 1.5e+00 4.4e+01 expression cltc (%) 2e+00 1.0e+00 clivi (kg m⁻²) lom lom) smb 4.4e+01 1.0e-01 ∆ od550aer 1e+00 5.0e-01 4.3e+01 5.0e-02 0.0e+00 4.2e+01 -1e+00 0.0e+00 4.2e+01 20002001200220032004 2000 2001 2002 2003 2004 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 Year Year Year Year Year load load of so4 - shp-ind-shift of bc - shp-ind-shift 0e+00 5.0e+00 $loadso4 (kg m^{-2})$ 4.5e+00 oadbc (kg m -2e-01 -3e-01 3.5e+00 4e-01 3.0e+002000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year