

EMISSIONS STUDIES OF CARBONACEOUS MATTER FROM FUELS USED IN INDIA**R. Gadi¹, T.K. Mandal², D.C. Parashar², A.P. Mitra²***¹Indira Gandhi Institute of Technology, Ggs Indraprastha University, Delhi, India**²Radio and Atmospheric Science Division, National Physical Laboratory, National Physical Laboratory, Delhi, India*

The estimation of budget for carbonaceous aerosols which, includes black carbon and organic carbon emitted from the combustion of various fuels, is very important for regional climate studies. Biomass burning is an important source of carbonaceous aerosols, which have significant effect on air quality and regional climate. Bio fuels are a major source of energy in developing countries especially in the rural sector. In India the main source of energy for cooking and heating is the combustion of traditional bio fuels as 70 to 80 percent of energy requirement in the rural India is met by this source. The emission factors for carbonaceous aerosols from rural consumption of fuels particularly bio fuels and soft coke have been determined. These emission factors along with those available for other fossil fuels consumed in urban industries have been applied to assess the budget of carbonaceous aerosols emitted from India. Preliminary calculations reveal a maximum of 5 ± 2 Tg of carbonaceous aerosols which includes 1.3 ± 0.7 Tg of black carbon. 80% i.e. 4 ± 2 Tg of carbonaceous aerosols emitted from India are found to originate from the use of biomass for energy.