

ES&T paper figures

Draft 5

Atmospheric Brown Clouds (ABCs) and Megacities -- An Estimated 3 Billion Persons Live Under ABCs – Implications for urban environments and beyond

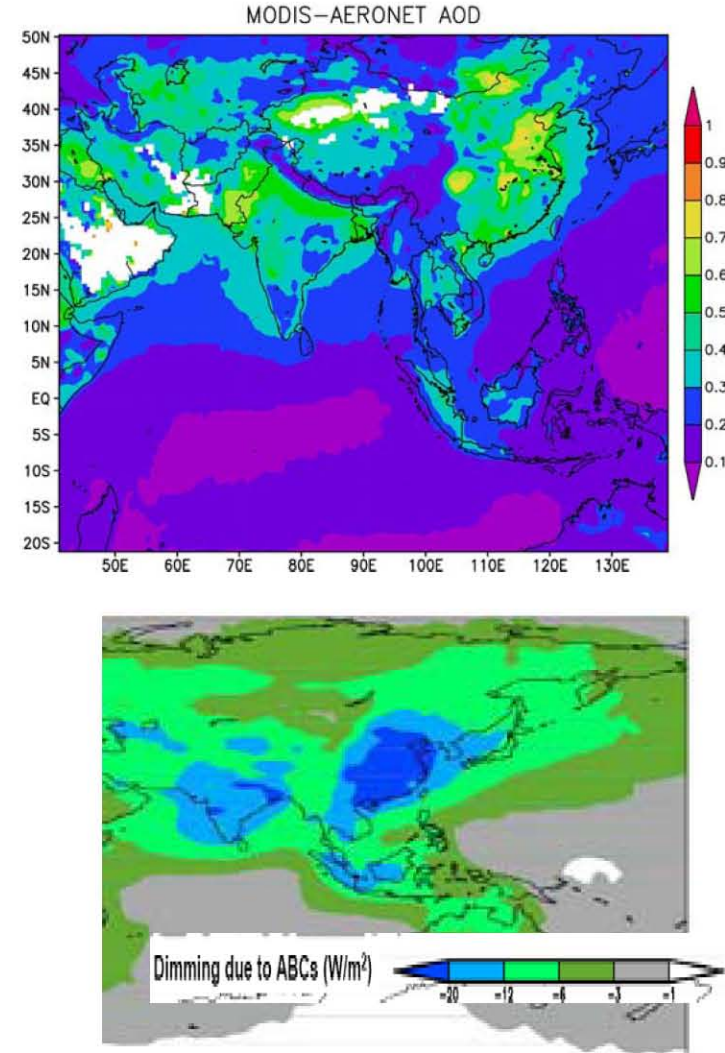
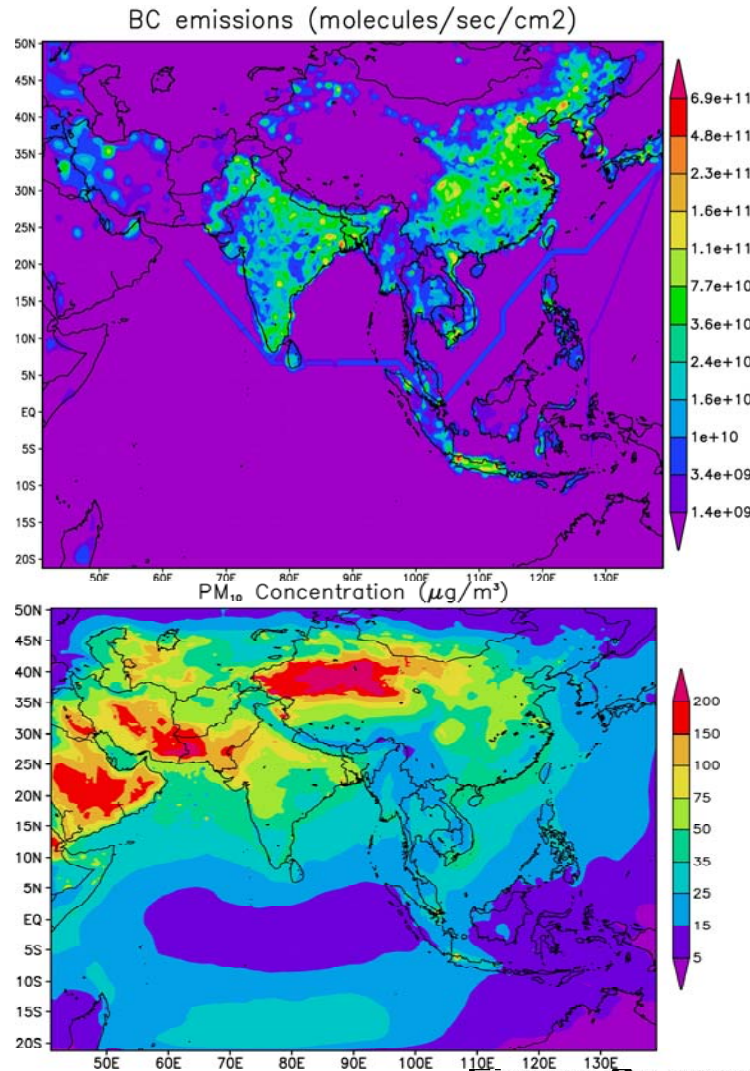


Figure 1

Figure Source: V. Ramanathan, and G. Carmichael, Nature Geoscience, 2008

Aerosol Mass

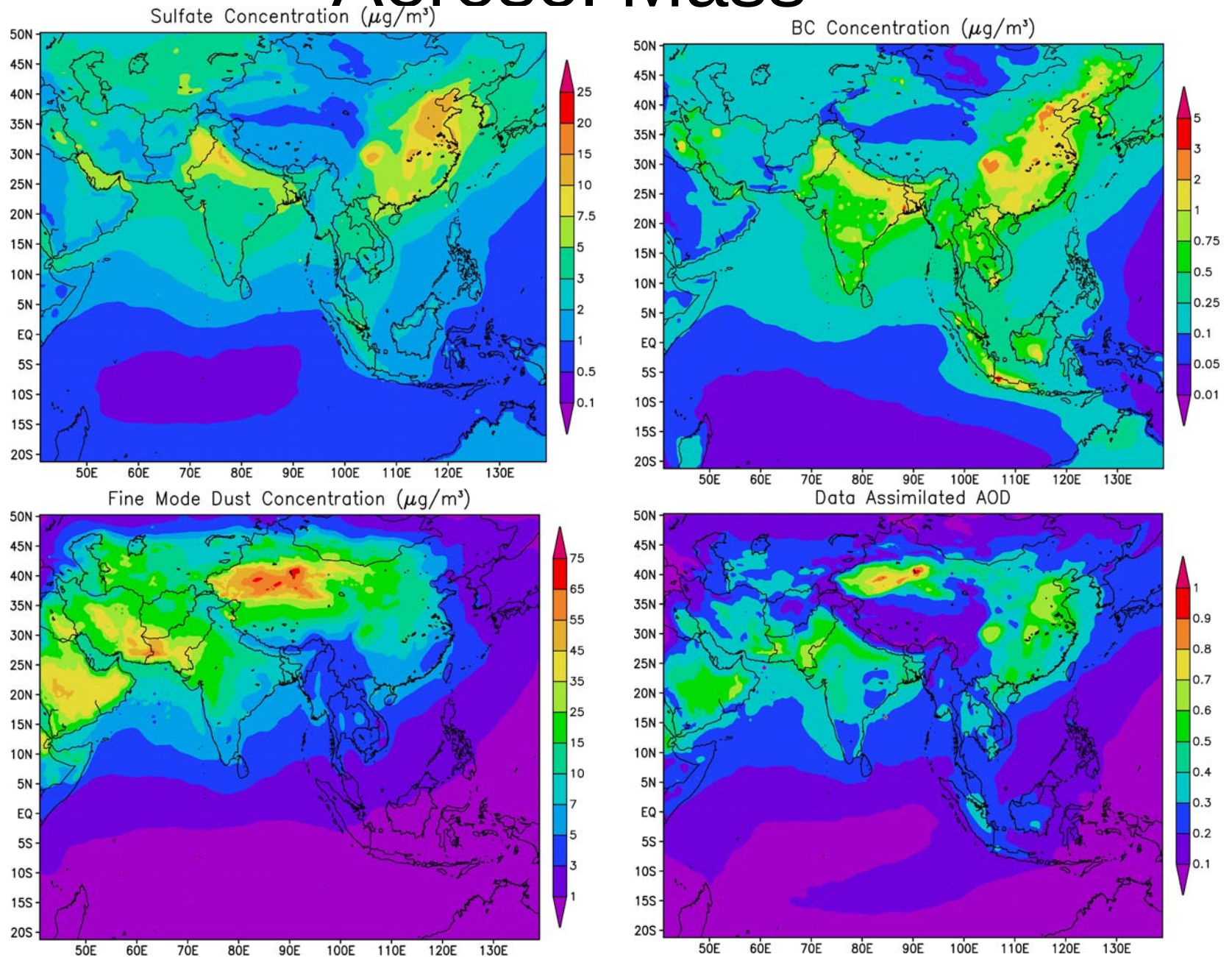


Figure 2

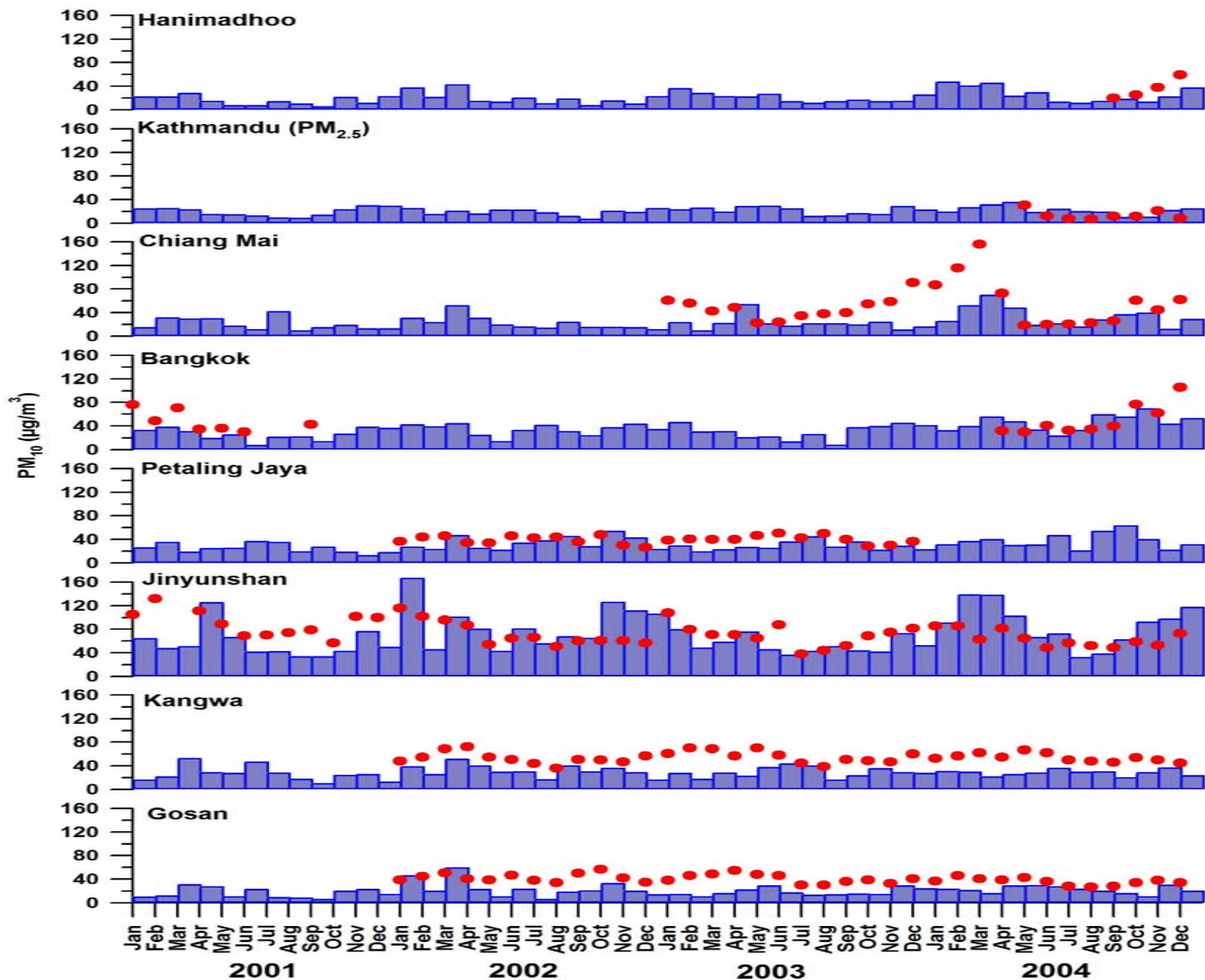


Figure 3

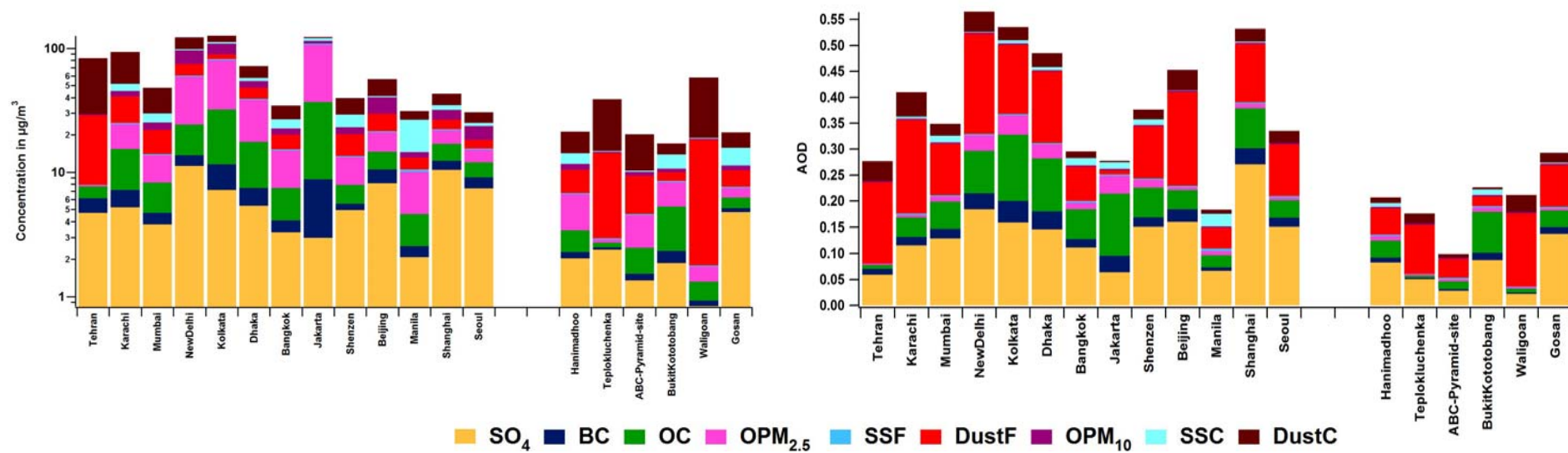
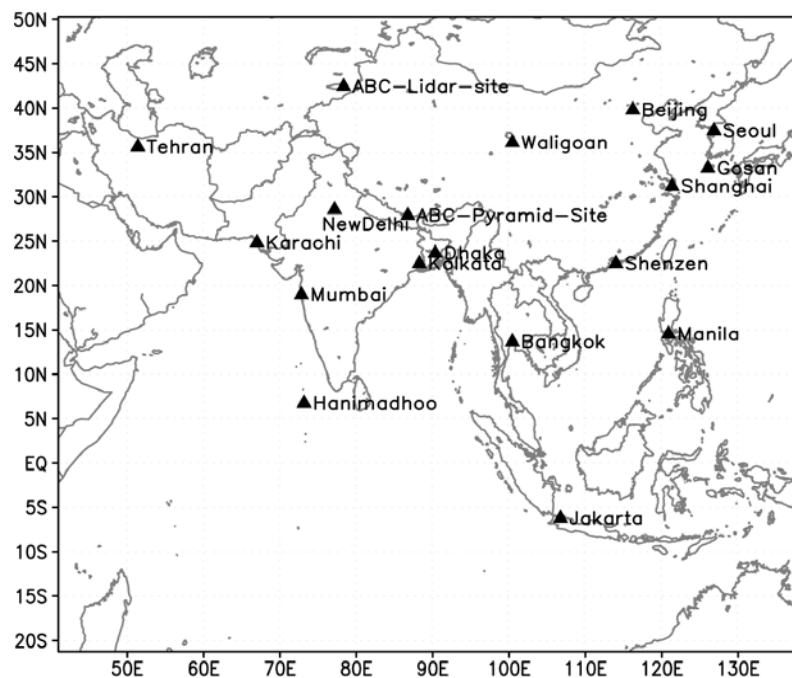
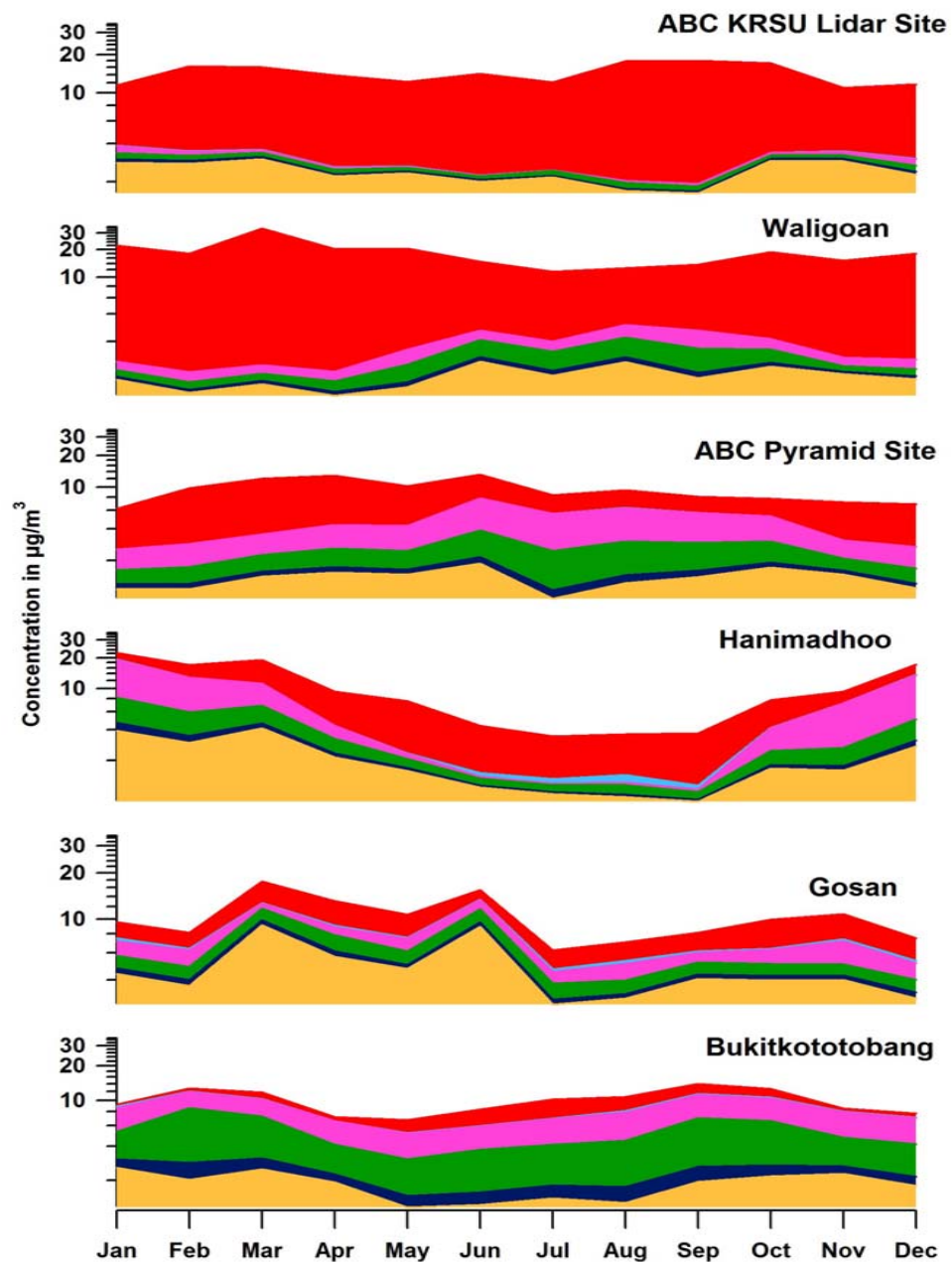
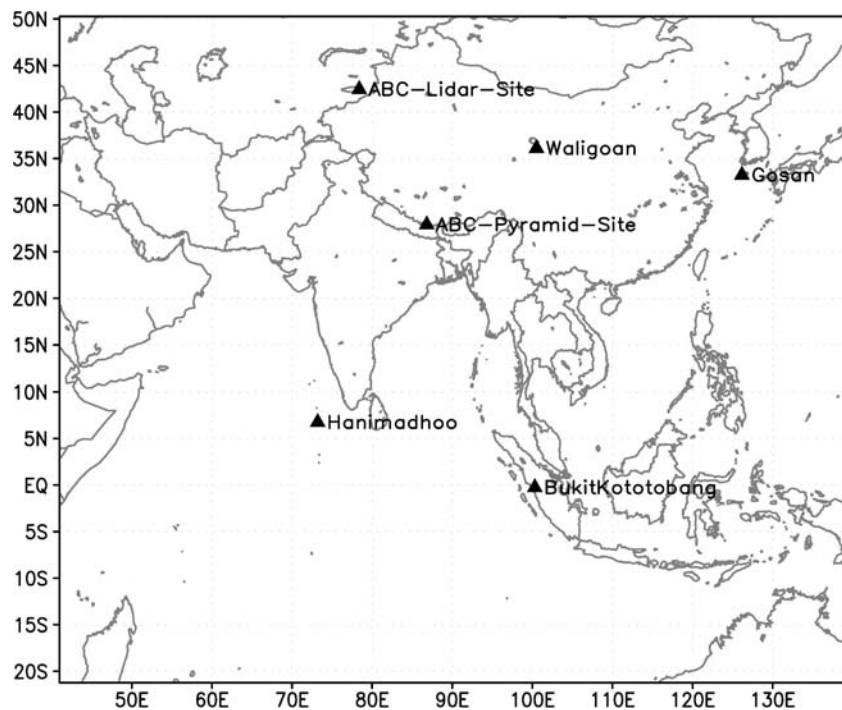


Figure 4



■ SO_4
■ BC
 ■ OC
 ■ Dust
 ■ Sea Salt
 ■ Other PM_{2.5}

Figure 5

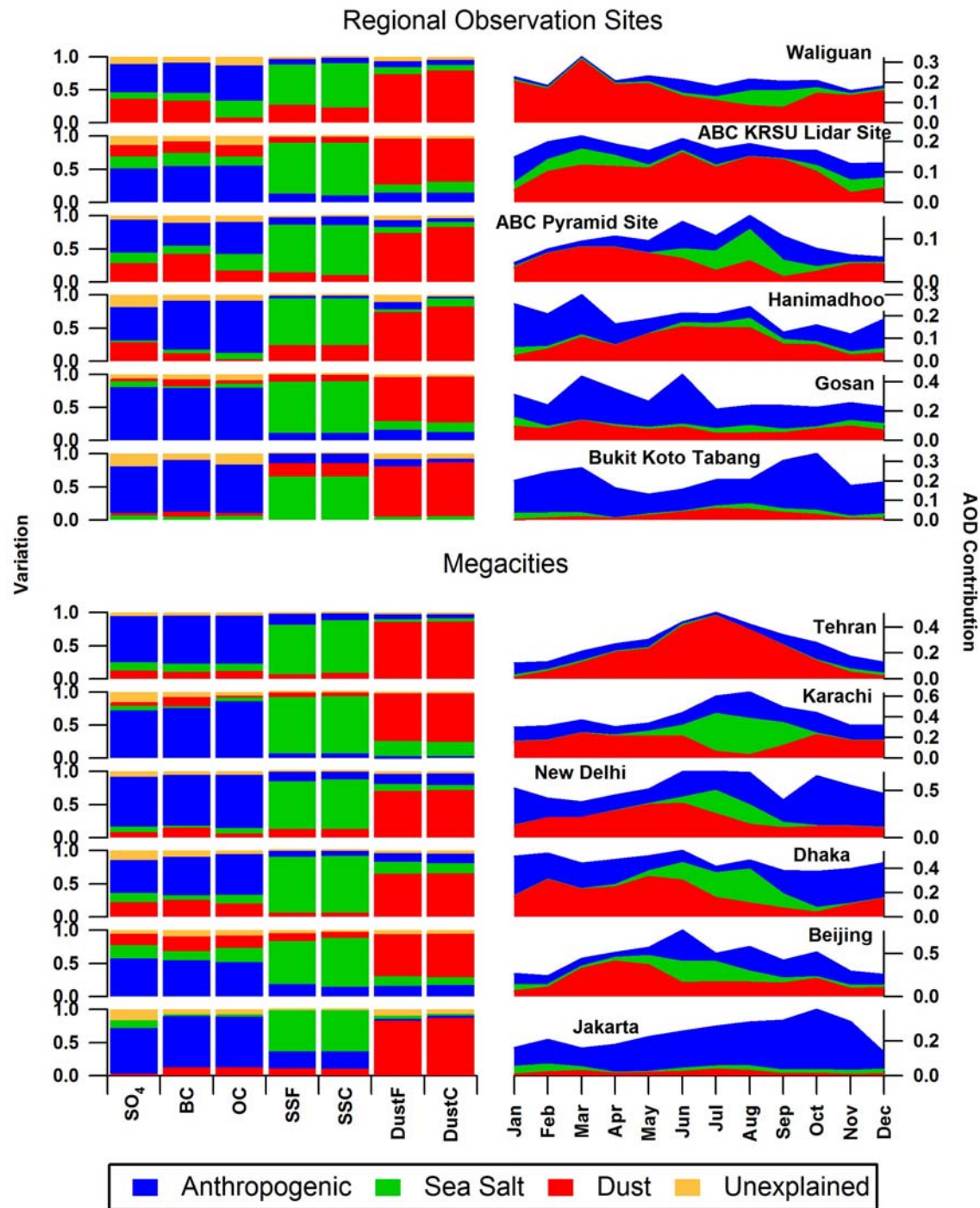


Figure 6

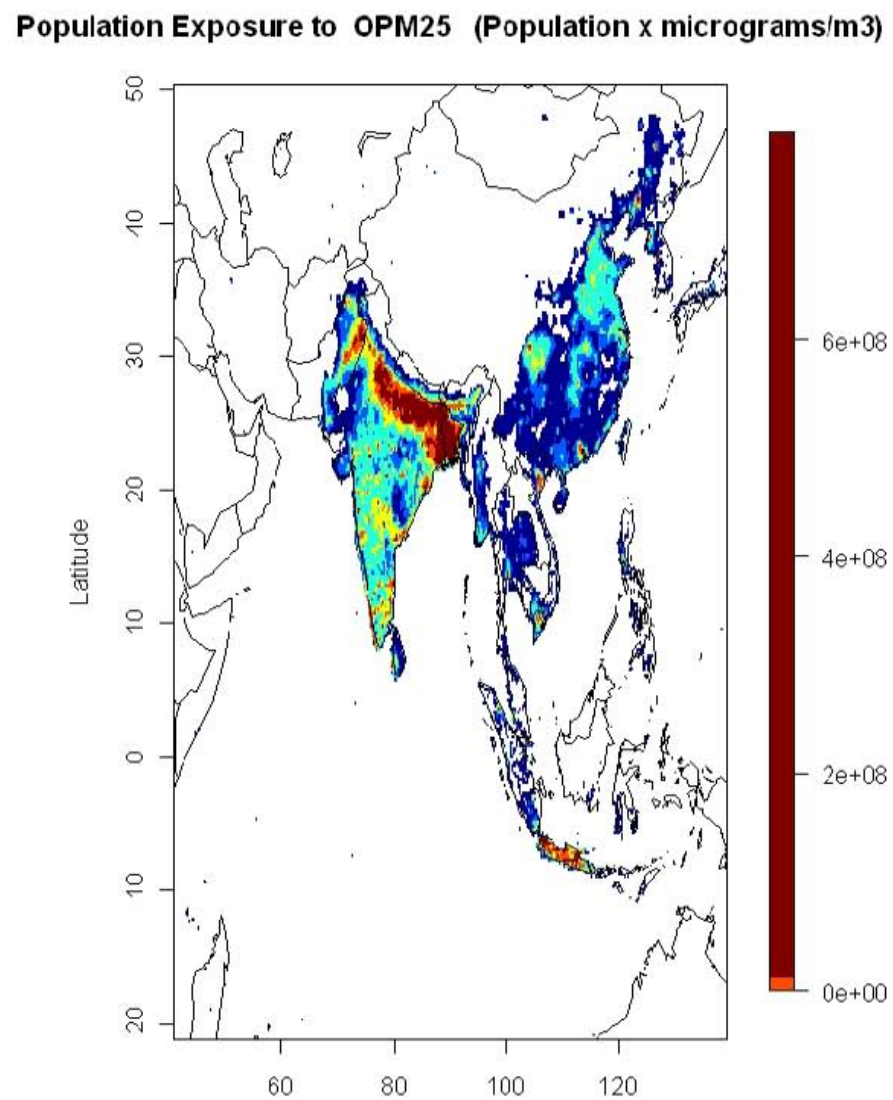
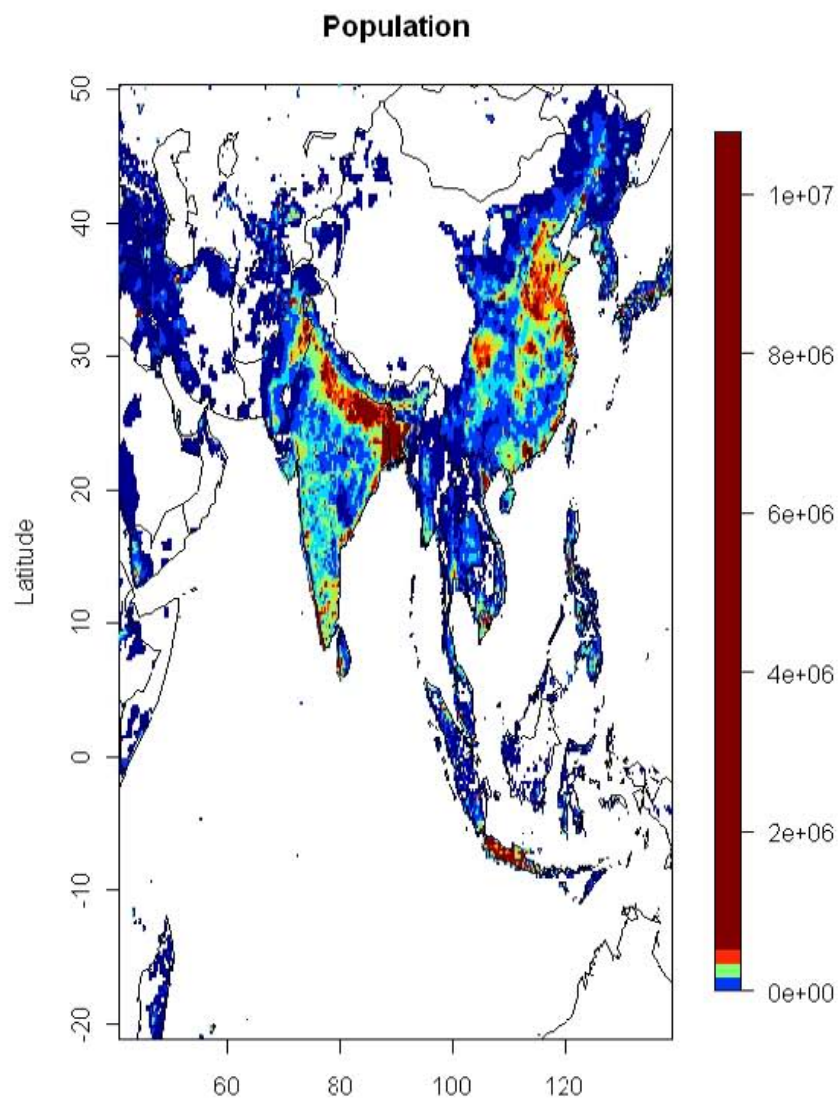
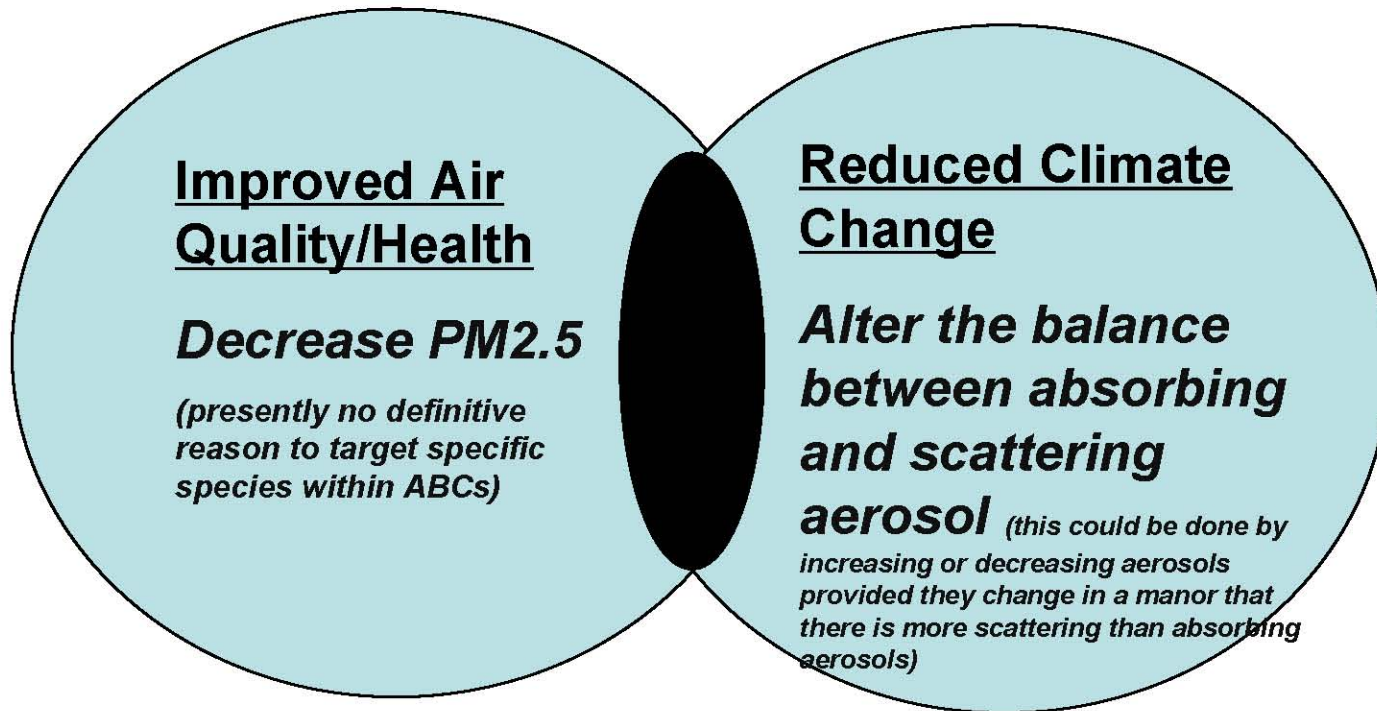


Figure 7

Reducing the Impacts of Aerosols on Air Quality and Climate

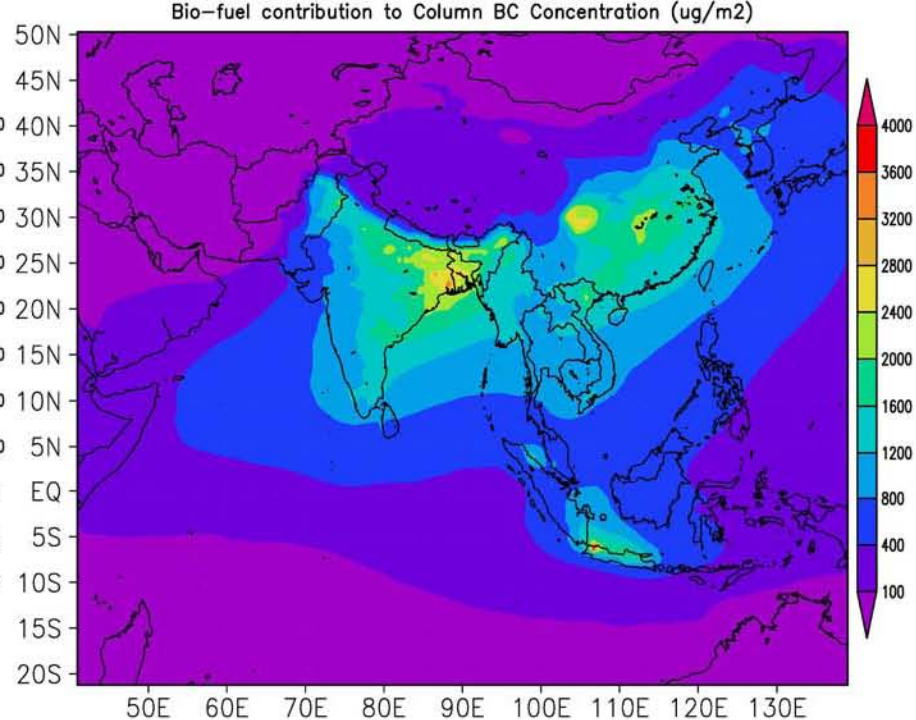
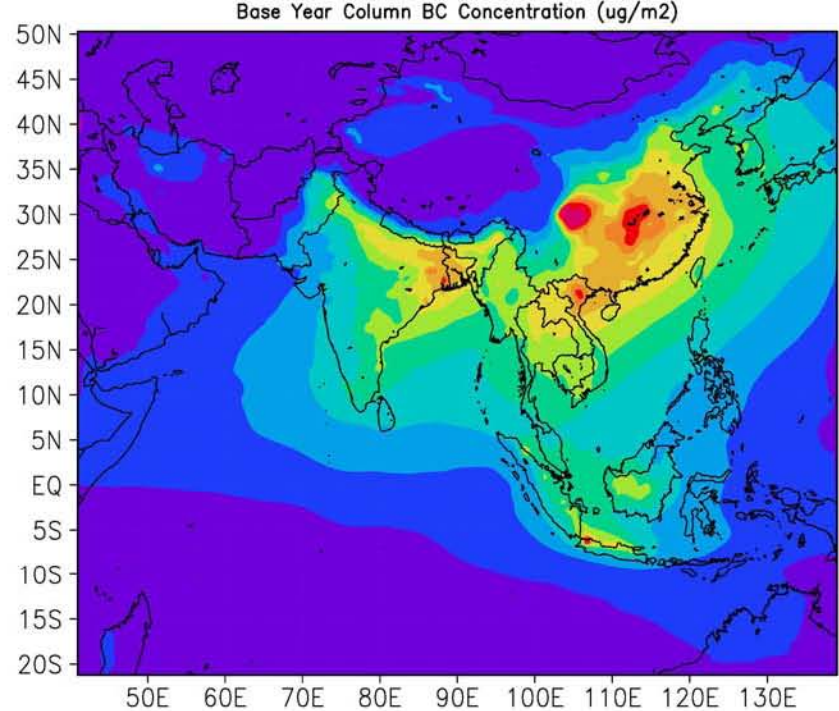


Win/Win Strategy

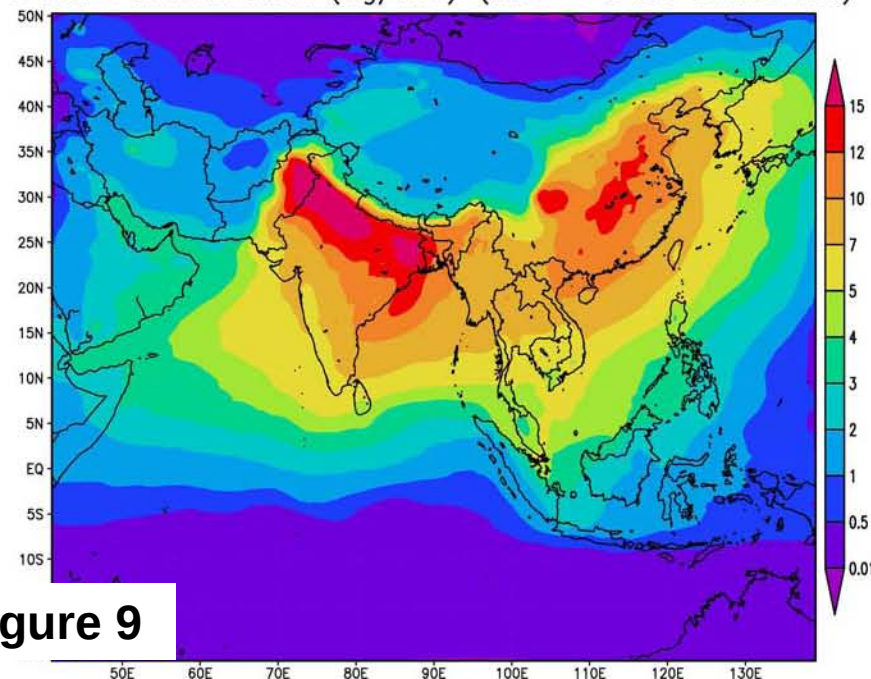
+ Decrease PM_{2.5}

+ Decrease BC faster than Sulfate aerosol

Figure 8



Delta Concentration ($\mu\text{g}/\text{m}^3$) (A1B – Base Emissions)



Delta Concentration ($\mu\text{g}/\text{m}^3$) (B1 – Base Emissions)

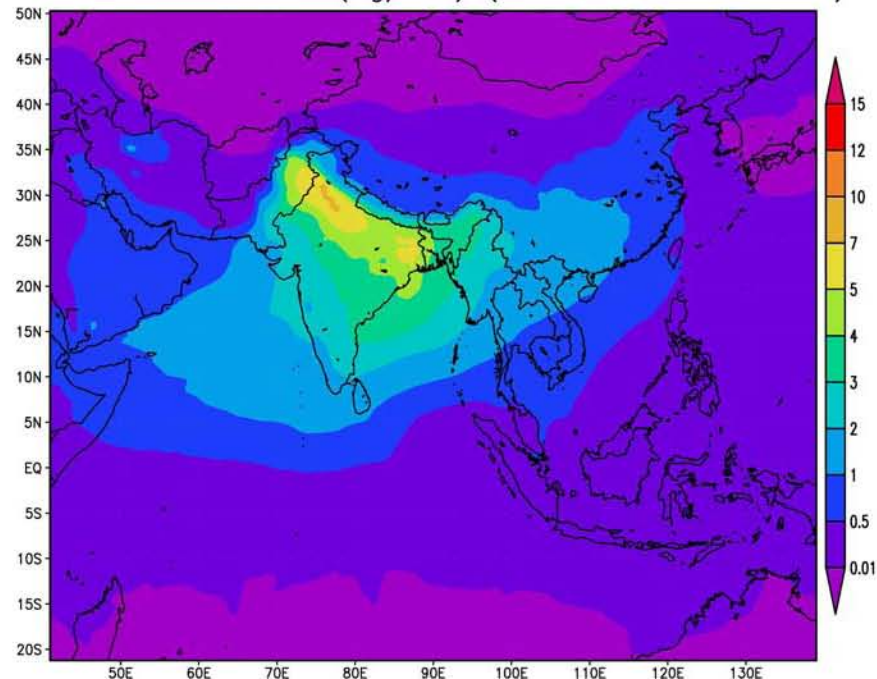


Figure 9

Contribution of Carbonaceous Aerosols from Bio-Fuel Emissions to AOD

BC-AOD/SO₄-AOD

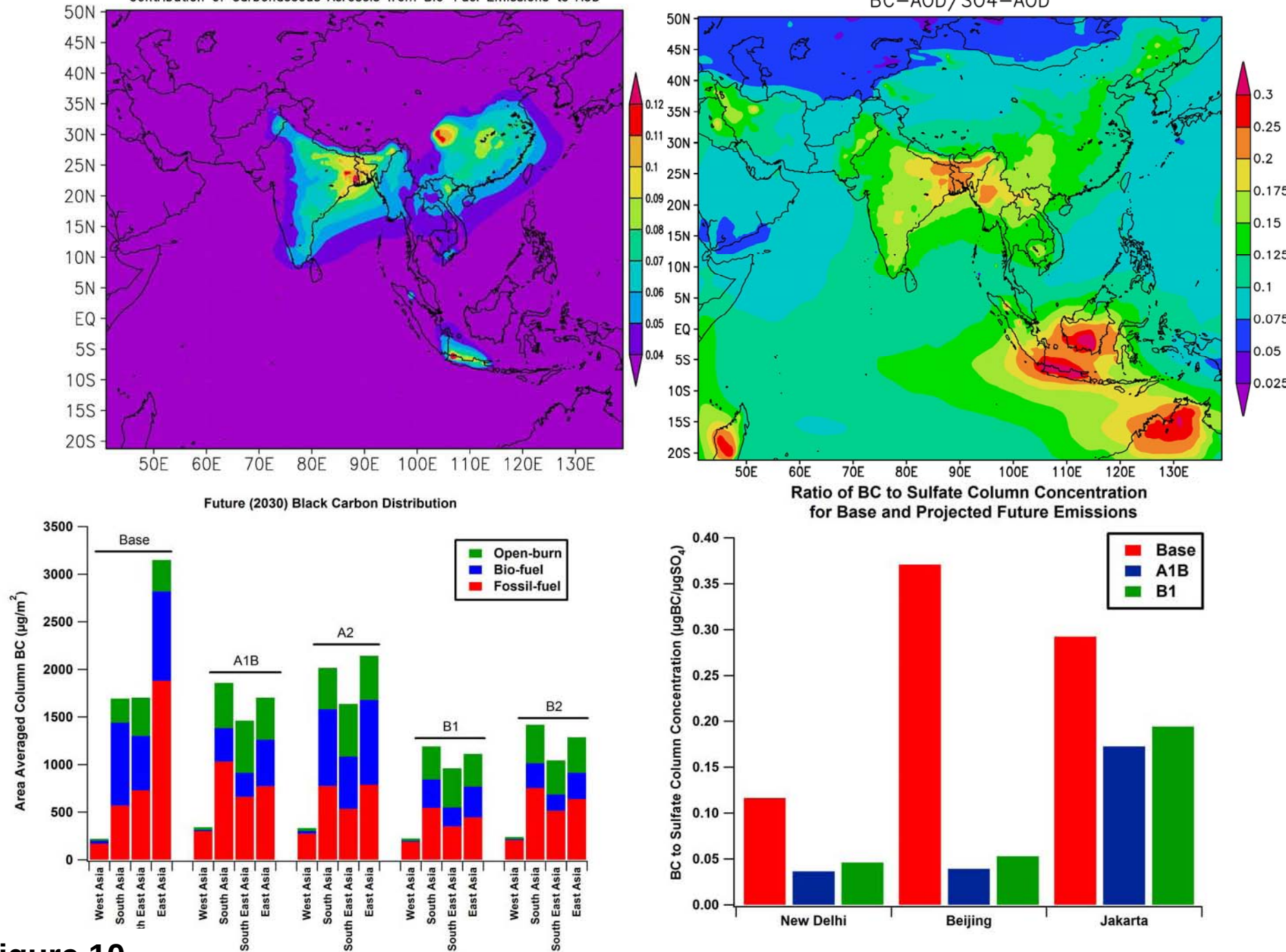


Figure 10