

3.043 Impacts of flaring emissions in Africa.

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Abstract:

Recent simulations have shown a gap between observed and modeled aerosol optical depths above the Guinean Gulf in West Africa, assuming the possible role of flaring emissions which are really important in this area and not accounted for in this work. It can be expected that these emissions also impact regional air quality and health. In this presentation, recent developments on flaring emission inventories for aerosols and gases obtained from DMSP satellite for the years 1990-2012 and validated over Nigeria will be presented and discussed in terms of temporal and spatial variability. By introducing such emission inventories in RegCM regional climatic model in addition to other anthropogenic sources (traffic, domestic fires, industries, charcoal making, biomass burning..) we will study the relative contributions of the different emissions sources on air quality, climate and health.