Marginal health impacts

The table below provides emissions estimates for the 10-country region of Southern Africa along with marginal health impacts for each species.

1. Use these data to estimate the number of premature mortalities caused by these emissions.

| Species | Emissions (tonnes/yr)1 | Marginal health impact (mortalities/tonne)2 |
| --- | --- | --- |
| Primary PM2.5 | 9.6 x 105 | 7.2 x 10-3 |
| SO2 | 3.3 x 106 | 4.8 x 10-3 |
| NOx | 2.4 x 106 | 3.1 x 10-4 |
| NH3 | 8.5 x 105 | 2.1 x 10-3 |
| Anthropogenic VOCs | 3.1 x 106 | 4.5 x 10-4 |

1: “Global Air Pollutant Emissions EDGAR v6.1.” <https://edgar.jrc.ec.europa.eu/index.php/dataset_ap61>. Does not include biomass burning emissions.

2: Preliminary results from the REACH-SAfrica model. Note that marginal impacts are a strong function of where the emissions occur. Here, for simplicity, we provide emissions-weighted regional-average values.