Short-lived Climate Pollutants

Near term response to mitigation

<table>
<thead>
<tr>
<th>SUBSTANCE</th>
<th>ANTHROPOGENIC SOURCES</th>
<th>LIFETIME IN ATMOSPHERE</th>
<th>LOCAL IMPACTS/MITIGATION</th>
<th>REGIONAL IMPACTS/MITIGATION</th>
<th>GLOBAL IMPACTS/MITIGATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLACK CARBON (BC)</td>
<td><img src="source" alt="Anthropogenic Sources" /></td>
<td>DAYS</td>
<td><img src="source" alt="Local Impact" /></td>
<td><img src="source" alt="Regional Impact" /></td>
<td><img src="source" alt="Global Impact" /></td>
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<tr>
<td>METHANE (CH₄)</td>
<td><img src="source" alt="Anthropogenic Sources" /></td>
<td>12 YEARS</td>
<td><img src="source" alt="Local Impact" /></td>
<td><img src="source" alt="Regional Impact" /></td>
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<tr>
<td>TROPOSPHERIC OZONE (O₃)</td>
<td><img src="source" alt="Anthropogenic Sources" /></td>
<td>WEEKS</td>
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<tr>
<td>HYDROFLUOROCARBONS (HFCs)</td>
<td><img src="source" alt="Anthropogenic Sources" /></td>
<td>15 YEARS (WEIGHTED BY USAGE)</td>
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SLCP EFFECTS ON PLANTS DUE TO:

- **O₃**
- BLACK CARBON & CO-POLLUTANTS
  - Impeded photosynthesis
  - Reduced ability to sequester carbon
  - Plant cell damage
  - Reduced crop production
  - Reduced quality and nutritive value of food and feed
  - Increased leaf temperature (uncertain effect)
  - Reduced sunlight reaching plants affecting photosynthesis (uncertain effect)

Approximate share of global crop losses from wheat + rice + maize + soybean (Year 2000)

- Latin America & Caribbean: 52%
- N. America & Europe: 18.4%
- Africa: 9.5%
- S.W. & Central Asia: 3.5%
- NE, SE Asia & Pacific: 16.6%