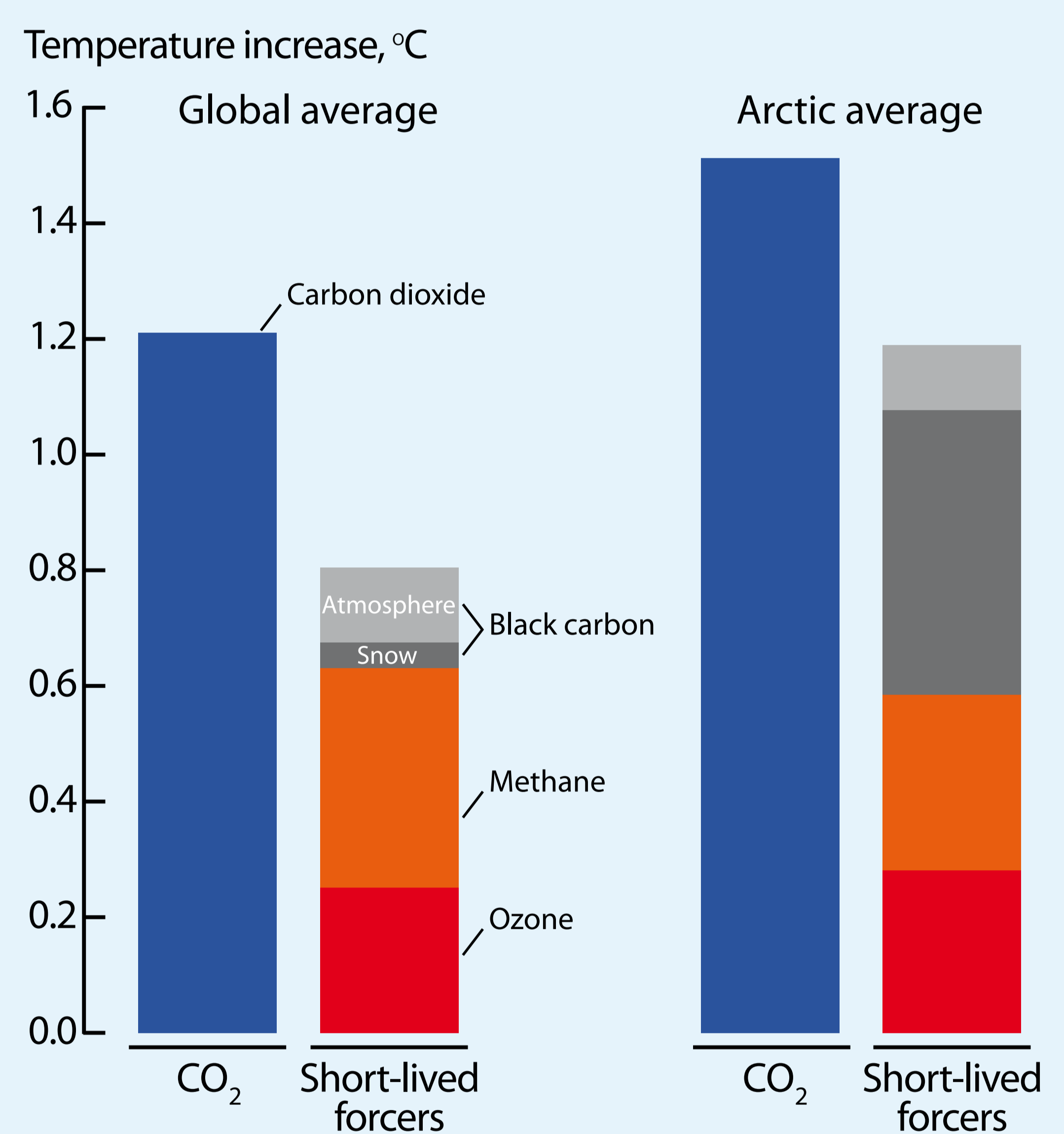




# Short-lived Climate Forcers Affecting the Arctic

- Pollutants such as black carbon (soot), tropospheric ozone, and methane contribute to Arctic warming. Due to their shorter 'lifetime' in the atmosphere they are termed short-lived forcers of climate change.
- There is evidence that, in the Arctic, short-lived forcers may have a warming effect similar in magnitude to that of carbon dioxide (CO<sub>2</sub>).
- Black carbon and ozone have a strong seasonal pattern in the Arctic potentially enhancing their effects during the period of spring melt. Short-lived climate forcers also contribute to mountain glacier melting in the Himalayas and Alpine areas.
- Options exist to reduce emissions of short-lived climate forcers that will benefit the Arctic;
  - reduction of methane anywhere on the globe
  - reduction of black carbon North of 40° N.
- Reductions of short-lived climate forcers could reduce warming in the near-term – but should not be seen as an alternative to action on CO<sub>2</sub>.



Emissions to be reduced:

