



# SLCFs: the co-benefit agenda

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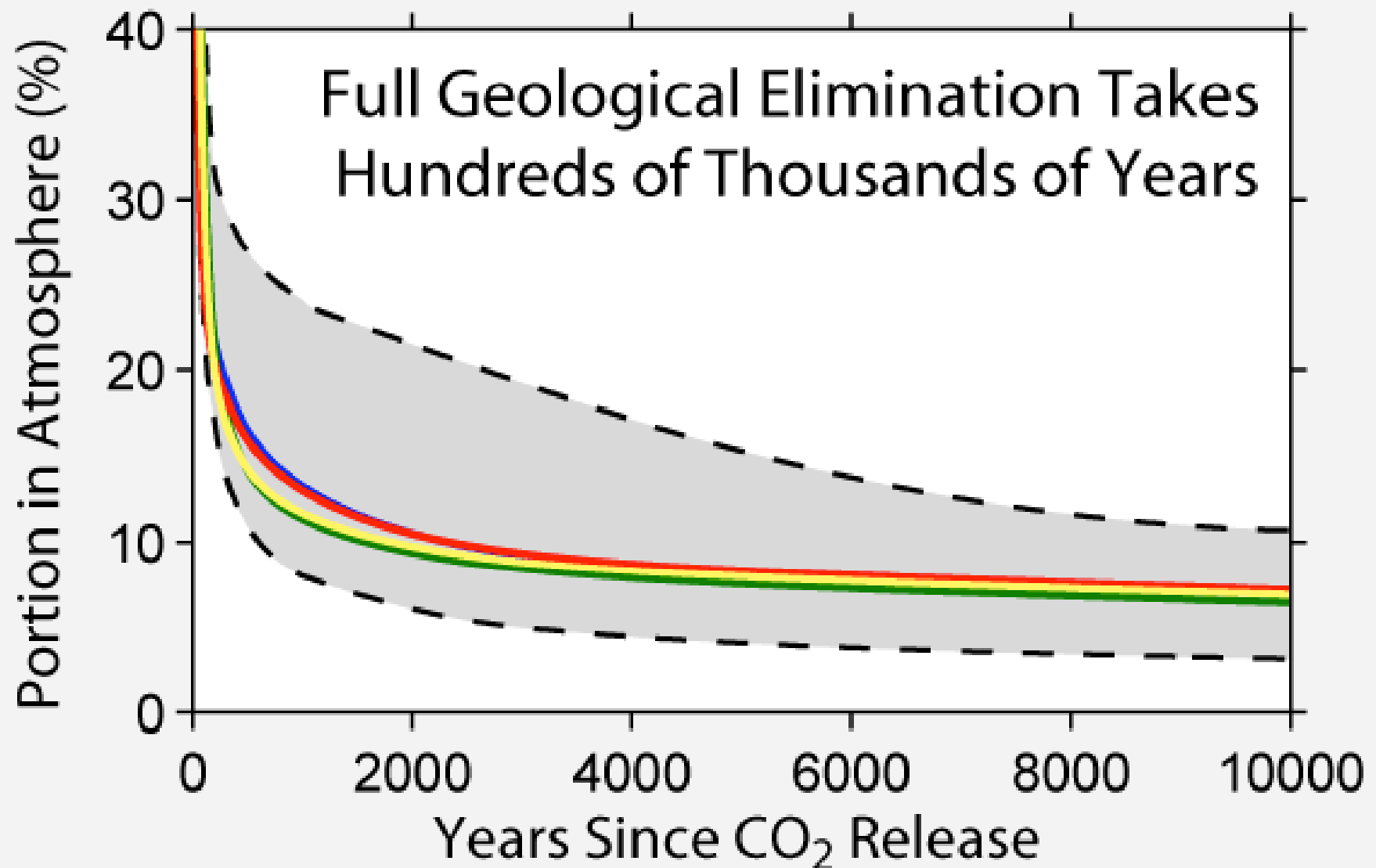


# GHGs and their life-time

Substance	Lifetime
Carbon Dioxide	Decades to centuries and about 20% will persist for many millennia; <b>GWP: 1</b>
Methane	12 years; <b>GWP: 21</b>
Nitrous oxide	120 years; <b>GWP: 310</b>
Black Carbon	3-8 days; <b>GWP: ??</b>
Halocarbons	Majority less than 29 years; but some like HFC-23 has 270 years; <b>GWP: 150-11700</b>
PFCs	10,000-50,000 years; <b>GWP: 6500-9200</b>
SF6	3200 years; <b>GWP: 23900</b>



# GHGs and their life-time



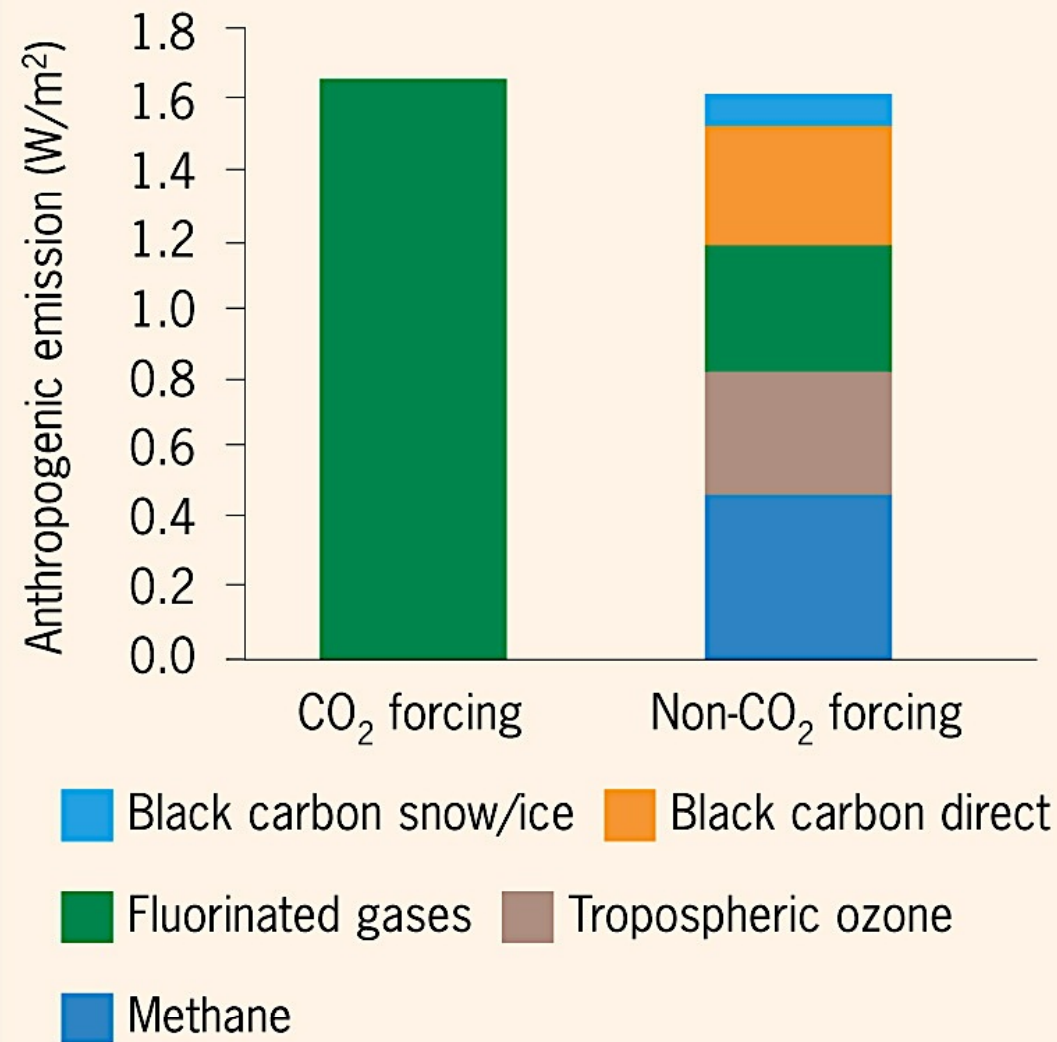


# Short-lived climate pollutants (SLCP)

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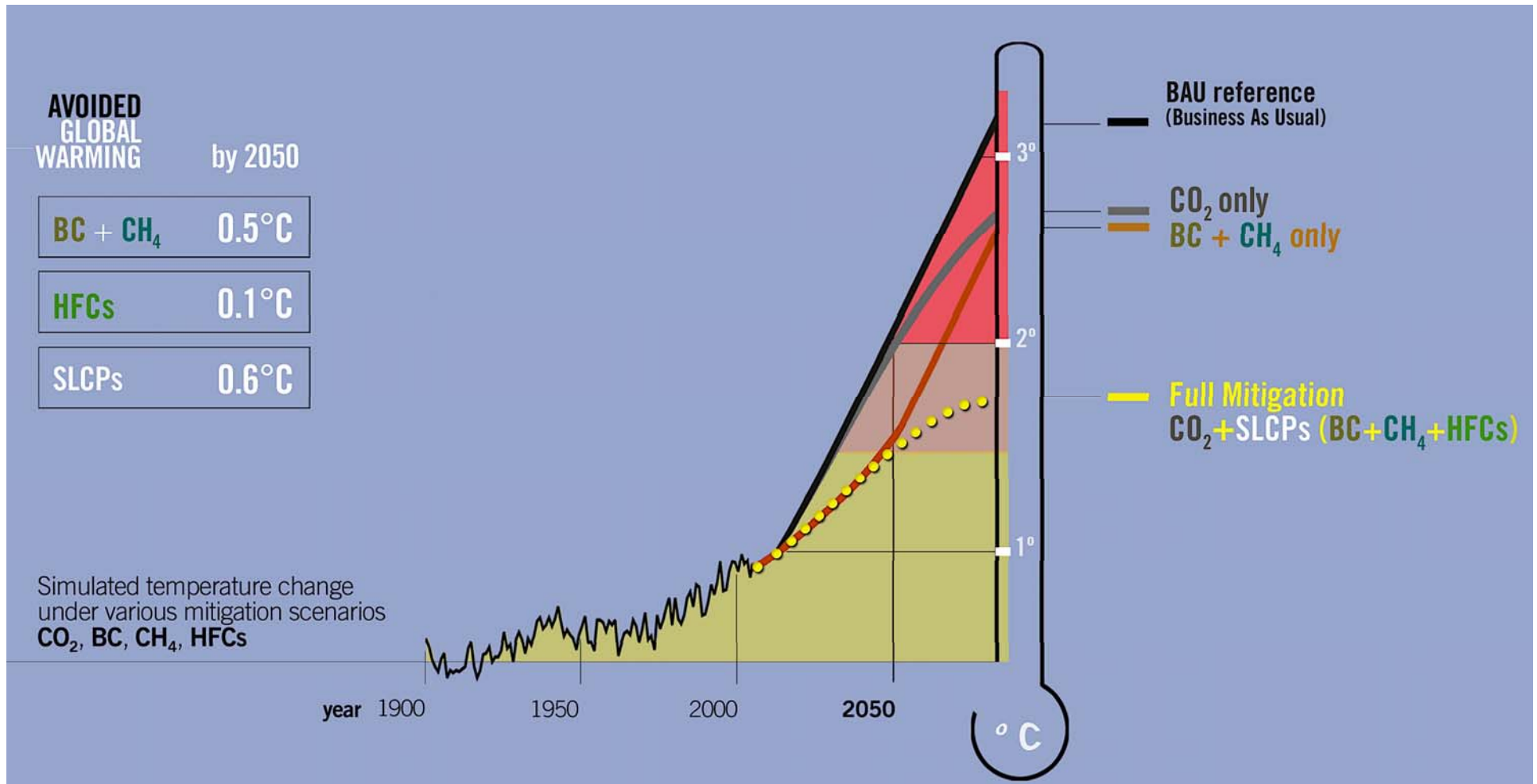


# Why SLCP?





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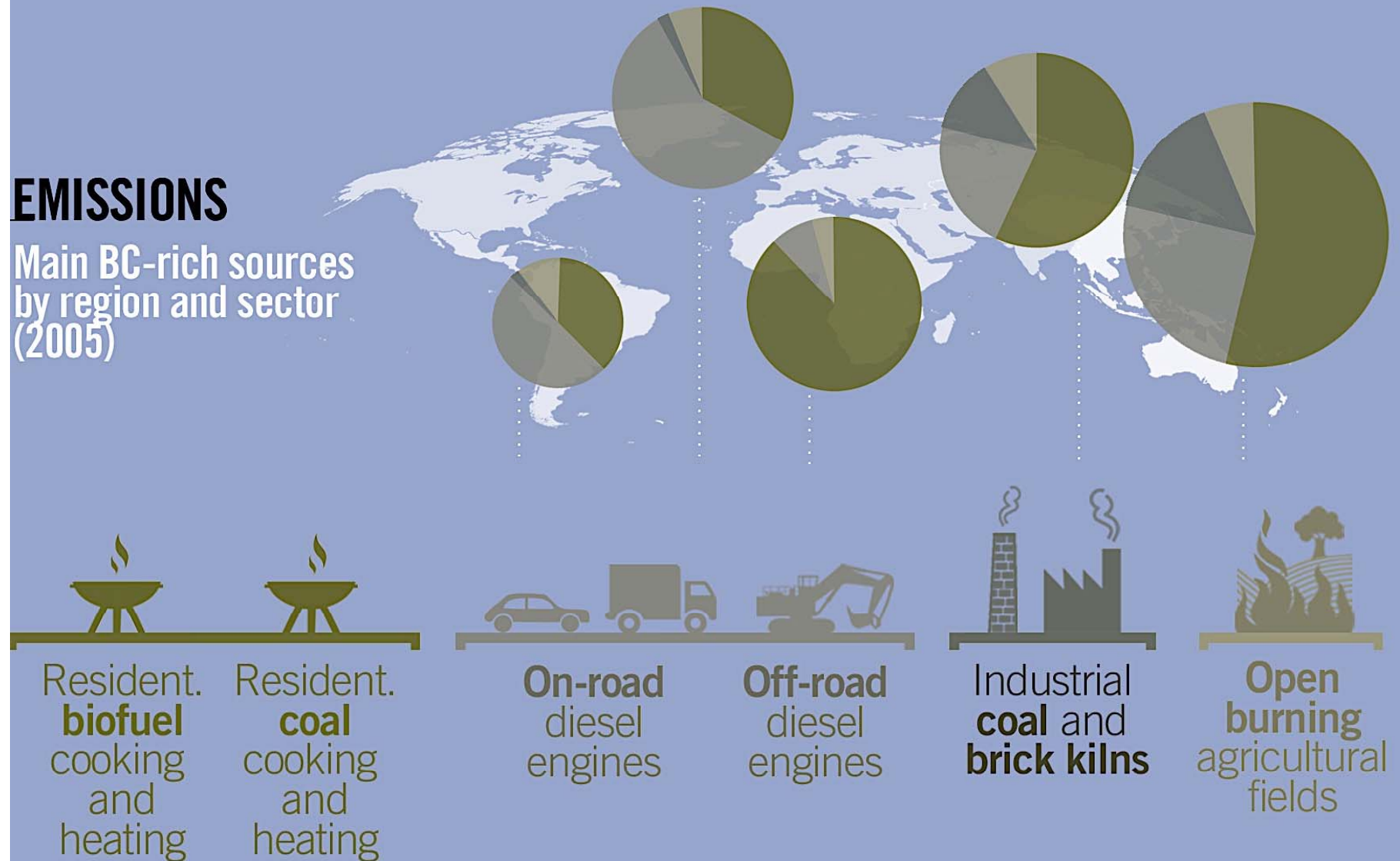




# Black carbon

## EMISSIONS

Main BC-rich sources  
by region and sector  
(2005)







Open burning and organic burning



Diesel Vehicles



Cook stoves

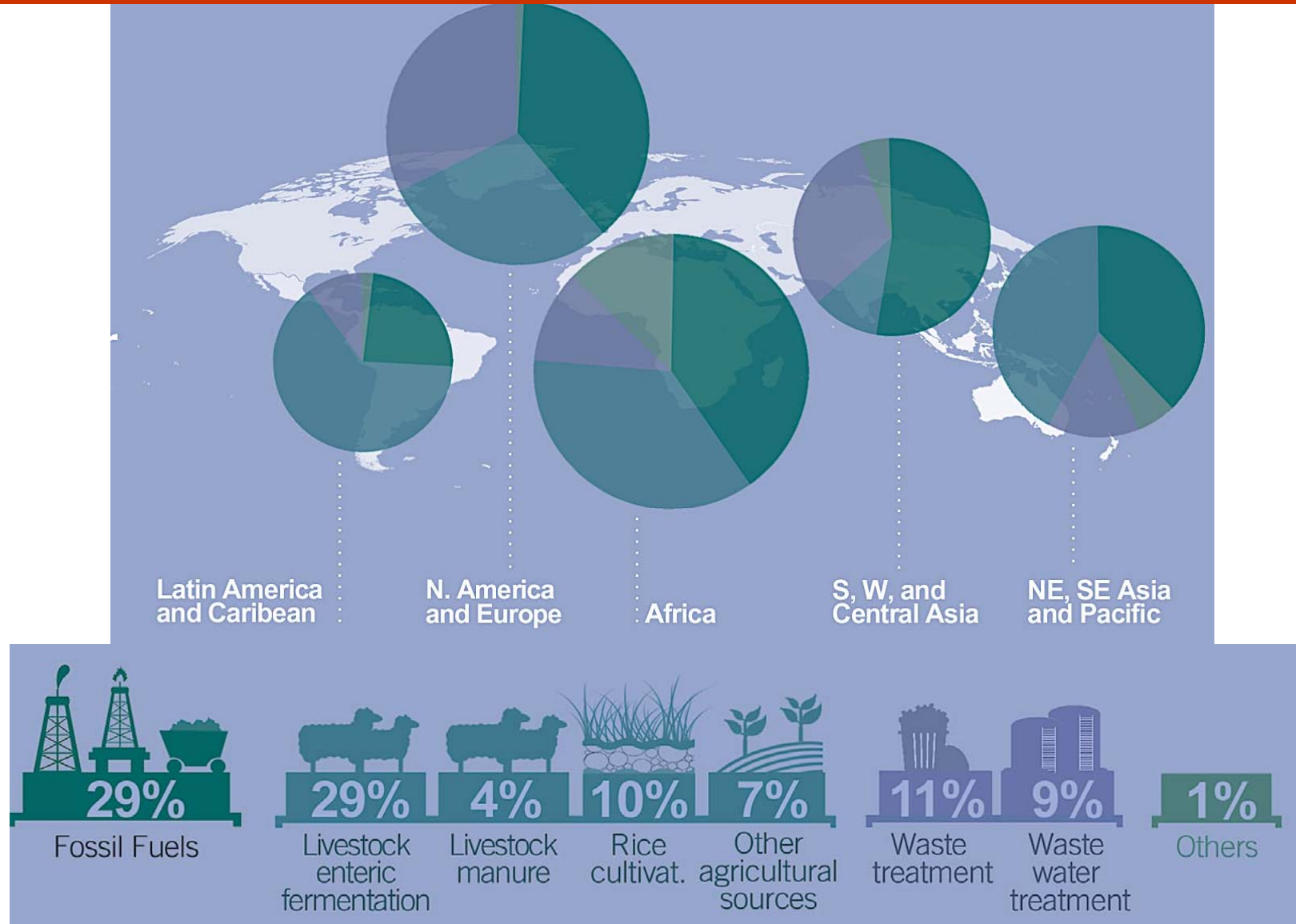


Industry Coke (BC) and Sulfate





# Methane





Oil and Gas Sector



Burning of solid waste

Coal Mining



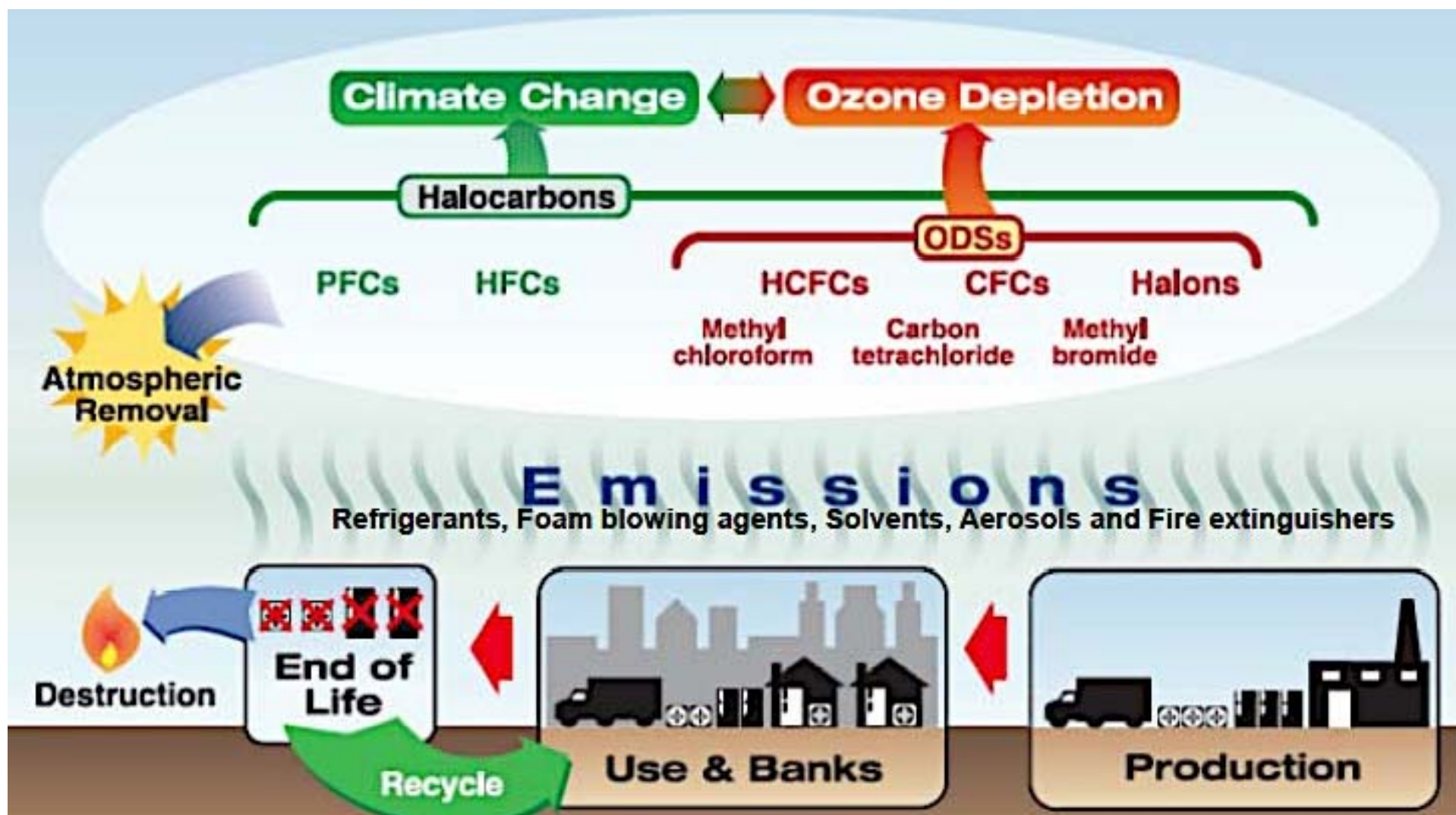
Rice fields





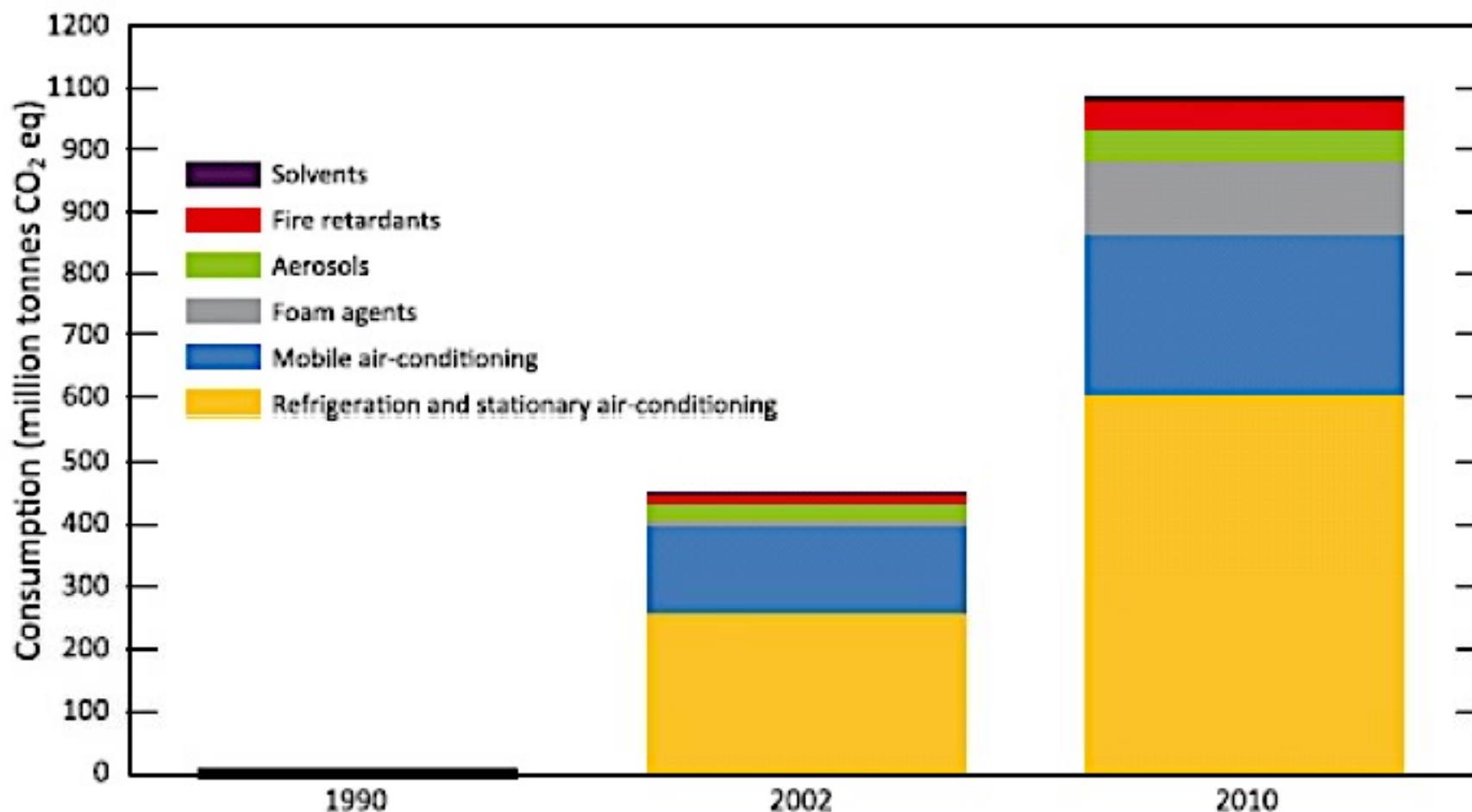


# Linkages between Global warming and Ozone Depletion





HFC consumption has more than doubled between 2002 & 2010 because of CFC & HCFC phase-out





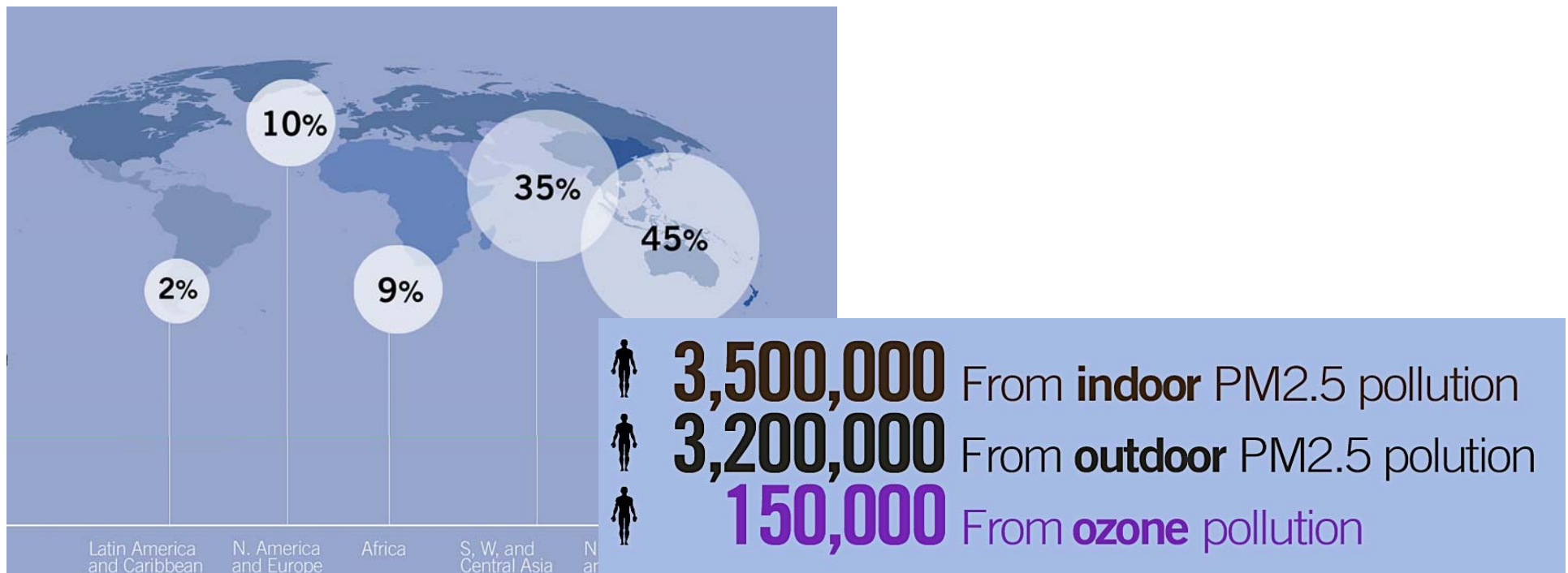
# Co-benefits Agenda

- Hard to cut fossil fuel dependence in short to medium term. SLCPs offer breathing space – Practical ways to reduce all four of these pollutants.
- Slow the pace of climate impacts and provide critical time to adapt to large climate changes
- Benefits for health, crops, and sustainable development will accrue *primarily* in the nations/regions taking action to mitigate these pollutants



# Co-benefits Agenda

- Saving millions of lives a year and significantly reducing other illnesses
- Improving food security
- Expanding energy access for the billion forced to depend on solid biomass





# Co-benefits but also politics

- Survival Emissions vs. Luxury Emissions. Cook stoves vs. SUV.
- Large reduction potential in developing world: We will have to do more.
- Shifting the burden of mitigation?

Action on SLCFs is not an alternative to action on CO<sub>2</sub>; Fast and aggressive CO<sub>2</sub> mitigation essential in developed countries

