







**CLIMATE &  
CLEAN AIR  
COALITION**  
TO REDUCE SHORT-LIVED  
CLIMATE POLLUTANTS

FAST ACTION • QUICK RESULTS • MULTIPLE BENEFITS

# WHY ACT ON SHORT-LIVED CLIMATE POLLUTANTS

Short-lived climate pollutants (SLCPs) are climate forcers many times more powerful than carbon dioxide (CO<sub>2</sub>) at warming the planet. But, because they're present in the atmosphere for a much shorter period of time, reducing them can rapidly reduce near-term warming. Certain short-lived climate pollutants are also dangerous air pollutants that have harmful effects for people, ecosystems and agricultural productivity.

The speed at which short-lived climate pollutants can be removed from the atmosphere presents an opportunity for quick, coordinated action to address global warming.

SUBSTANCE	ANTHROPOGENIC SOURCES	LIFETIME IN ATMOSPHERE
BLACK CARBON (BC)		DAYS
METHANE (CH <sub>4</sub> )		12 YEARS
TROPOSPHERIC OZONE (O <sub>3</sub> )		WEEKS
HYDROFLUOROCARBONS (HFCs)		15 YEARS (WEIGHTED BY USAGE)

## LONG-LIVED CLIMATE POLLUTANTS

Longer term response to mitigation

<b>CARBON DIOXIDE (CO<sub>2</sub>)</b>	Rapid, deep, and persistent cuts in CO <sub>2</sub> and other long-lived greenhouse gases are necessary to stabilise global temperature rise in the long term.	UP TO 60% <100 YEARS UP TO 25% >1,000 YEARS
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## NEAR-TERM IMPACTS

Short-lived climate pollutants are the largest contributors to global warming after carbon dioxide. They are responsible for up to 45% of current global warming, contribute to the 7 million annual premature deaths from air pollution, and cause 110 million tonnes of crop losses each year.



HARM PUBLIC HEALTH



REDUCE FOOD SECURITY



WARM THE ATMOSPHERE



ACCELERATE MELTING OF  
ICE AND SNOW



DISRUPT WEATHER  
PATTERNS

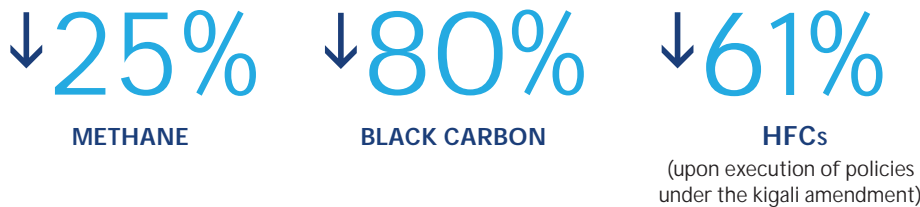


# SHORT-LIVED CLIMATE POLLUTANTS

## SOLUTIONS

We have a package of solutions that can reduce black carbon, methane and HFC emissions. Many of these measures involve cost-effective technologies and practices that already exist.

By implementing these solutions, we can reduce global emissions by 2050 by:



## CLIMATE BENEFITS



0.60C avoided warming by 2050

The 2018 IPCC Special Report on 1.5°C shows that simultaneous mitigation of short-lived climate pollutants and CO<sub>2</sub> is the only possible scenario for achieving the Paris Agreement target.

Fast and immediate action on short-lived climate pollutants can avoid over half a degree of warming by 2050. It will also avoid over 50% of predicted warming in the Arctic by 2050 and significantly reduce the risk of triggering dangerous climate tipping points, like the irreversible release of carbon dioxide and methane from thawing Arctic permafrost.

## DEVELOPMENT BENEFITS

There are also multiple development benefits to action to reduce short-lived climate pollutants. These benefits can be perceived almost immediately where action has been taken.



### HEALTH

2.4 million avoided premature deaths annually from outdoor air pollution



### FOOD SECURITY

52 million tonnes of avoided crop losses from 4 major staples per year

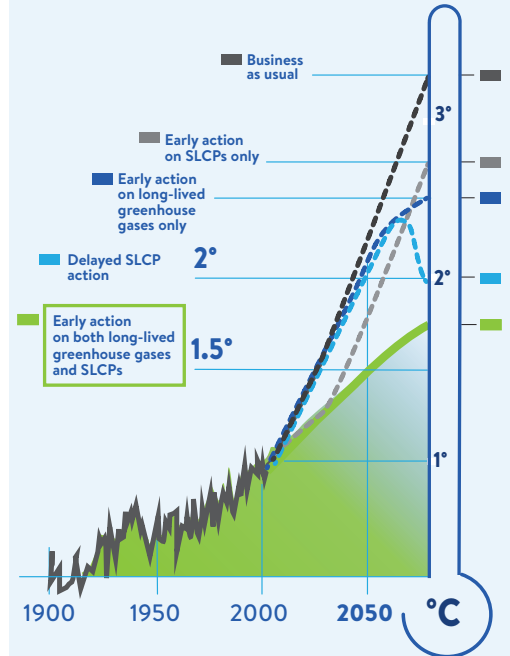


### SUSTAINABLE DEVELOPMENT GOALS

Contribution to meeting the SDGs related to air quality, health, and food security

## CLIMATE MITIGATION PATHWAYS

Avoided global warming by 2050



**MORE INFORMATION:**  
[ccacoalition.org/science](http://ccacoalition.org/science)



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