



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



CLIMATE &
CLEAN AIR
AWARDS

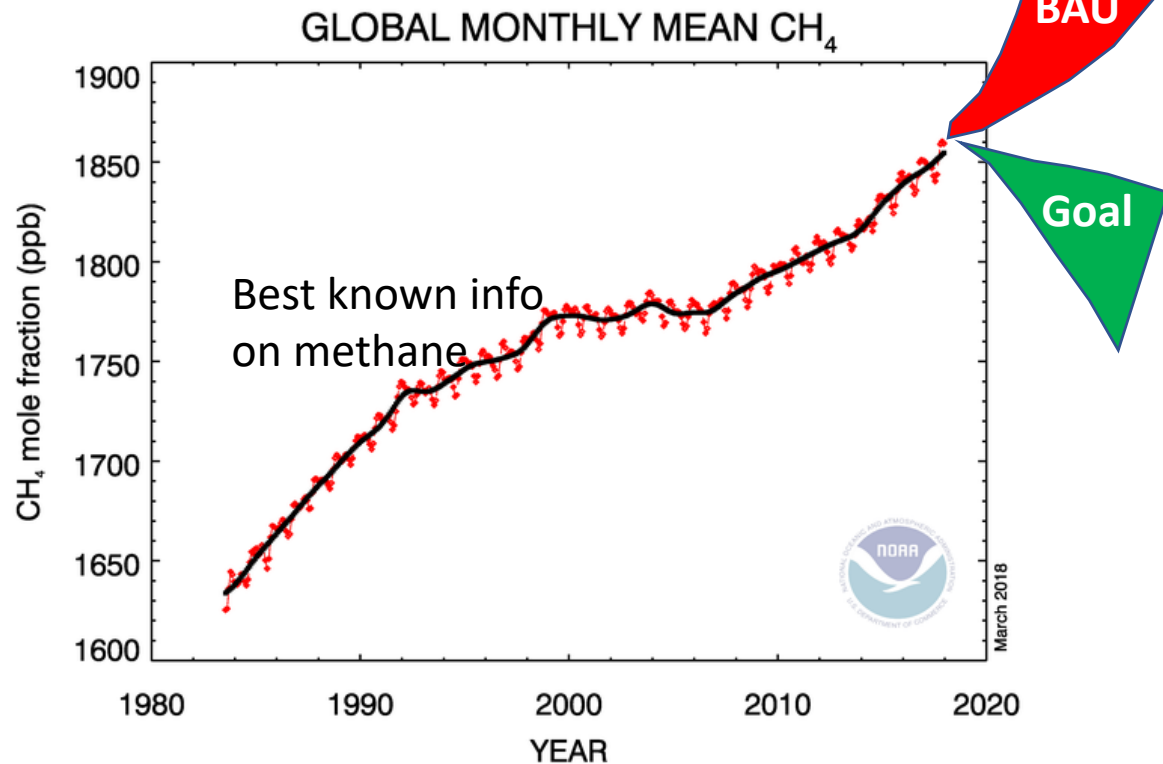


Methane: Our current knowledge

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On behalf of SAP

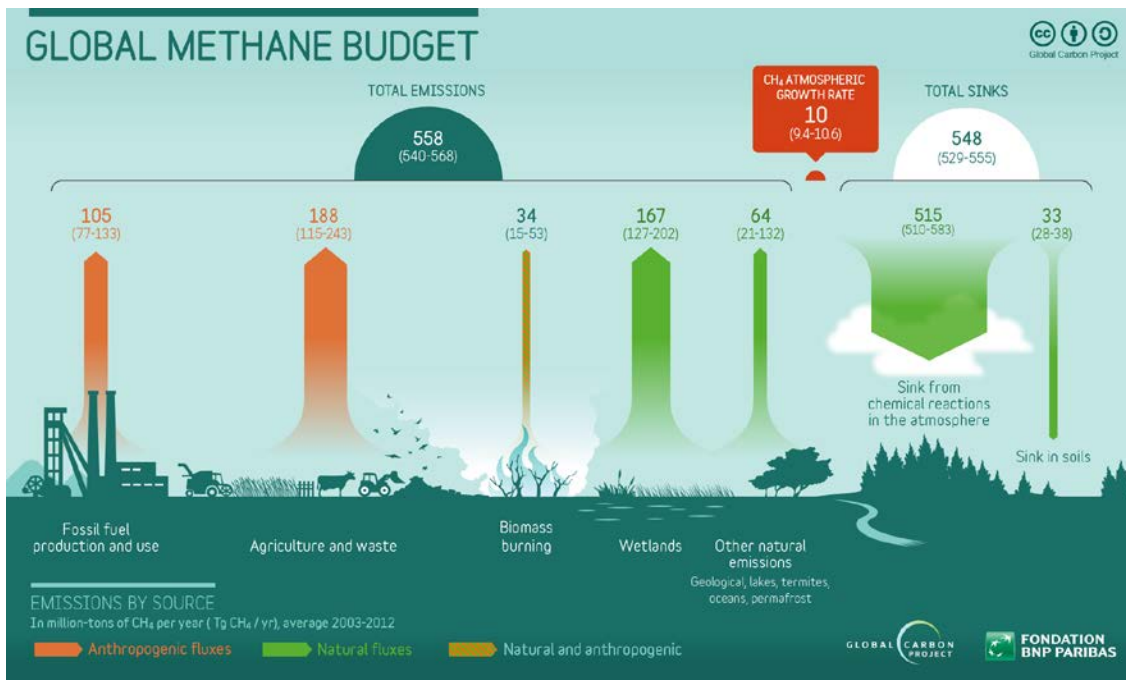
A few facts about Methane (CH₄)

- Potent Green House Gas: GWP (100 yr) ~30; short term ~100 times more potent than CO₂
- Emission reduction gets quick results



- ❖ Methane **emissions** are increasing- increase in **concentration** not just due to any slowdown in loss rates
- ❖ Our knowledge to date suggests major climate and health benefits from methane reductions
- ❖ It would be good to reduce emission even to bend the curve

Methane Budget

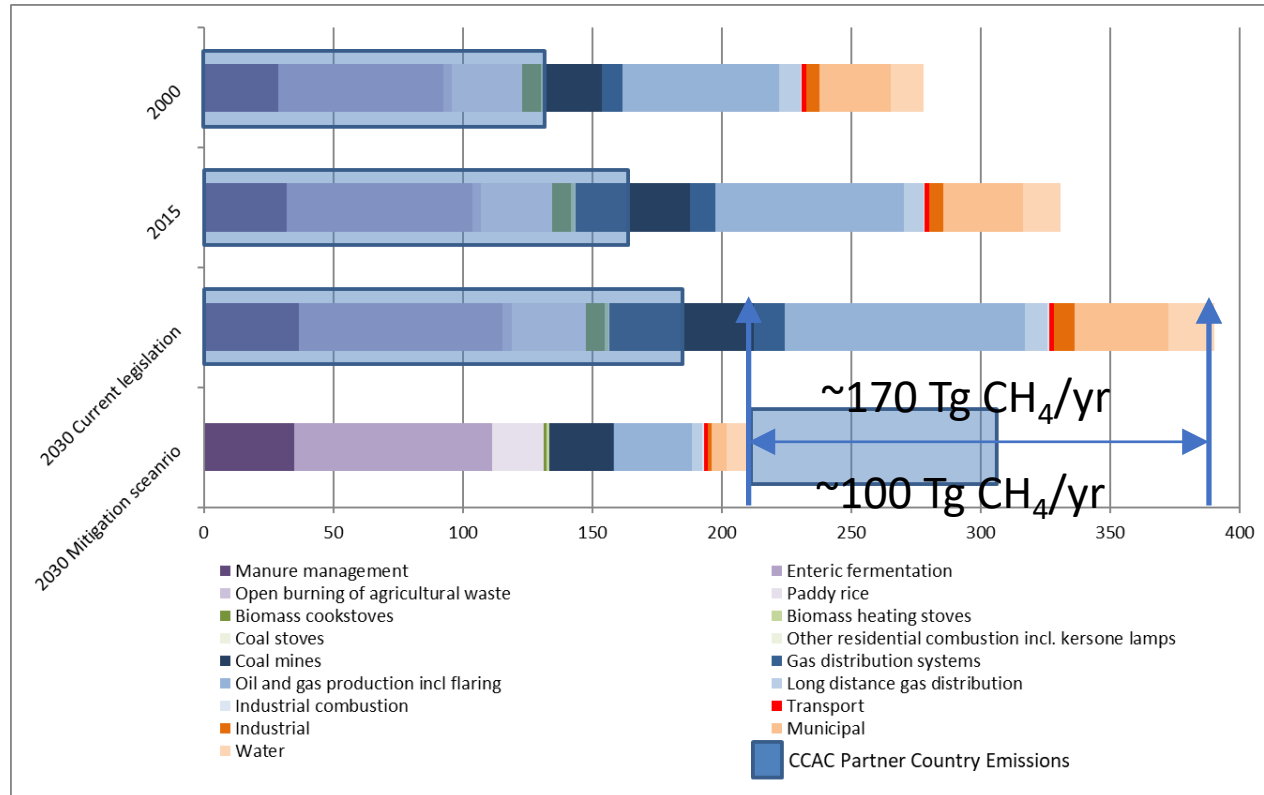


- Best known quantities- overall emission, growth rates, and total loss rates
- Natural emissions not expected to change
- Change in "natural emissions" due to climate change- natural or anthropogenic?

- Major anthropogenic sectors are: Fossil fuel production and use & agricultural sectors
- Need to keep our eyes on the fossil fuel sector (especially "fracking")
- Agriculture is the largest source of methane- reductions here will help a great deal.... But directly connected to food!

GAINS Model Results:

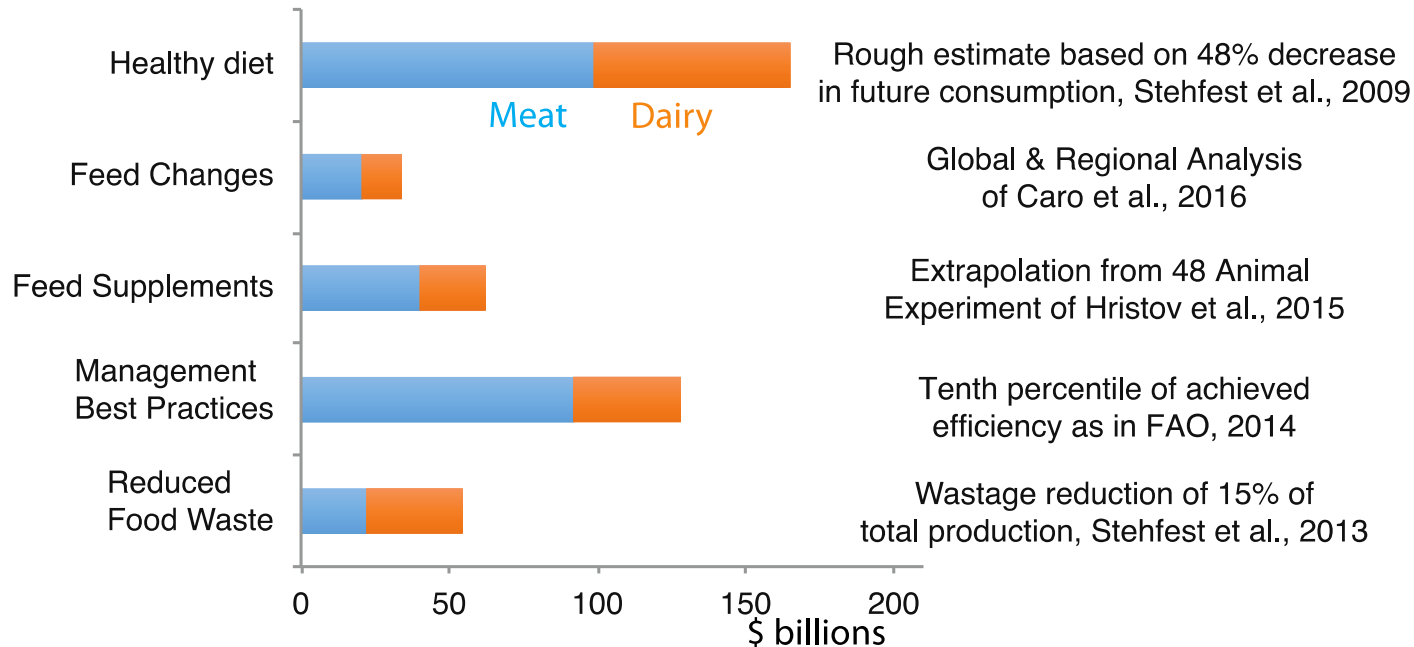
Potential methane reductions



Z. Klimont,
personal
communication

- A large realizable gain can be had by various methane reduction options
- A significant fraction of this reduction can come from CCAC countries

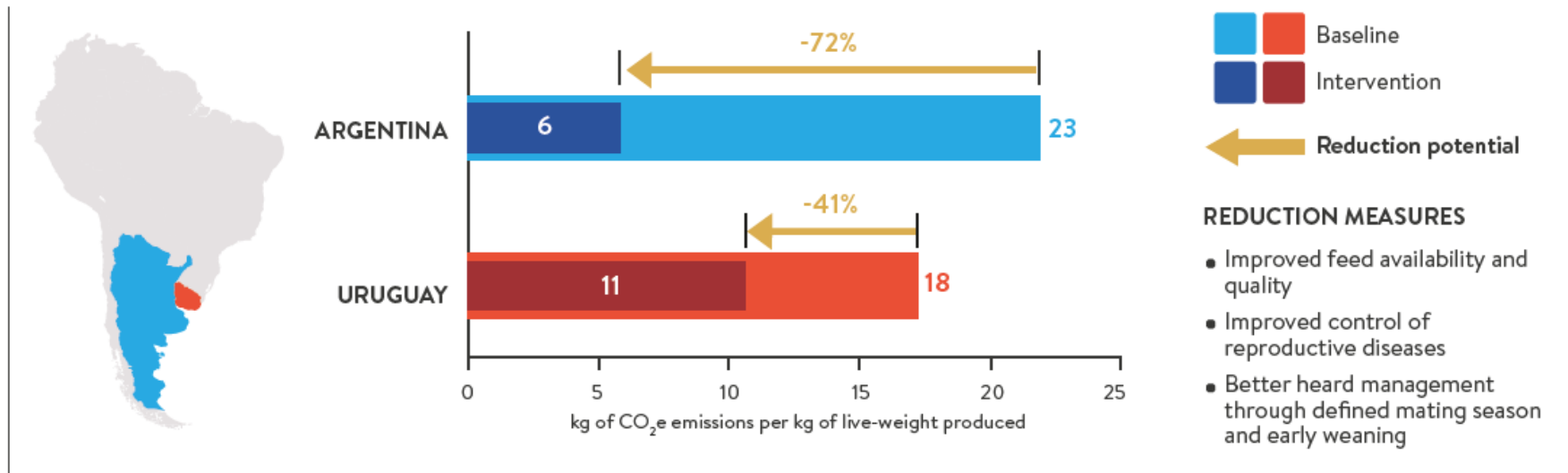
Benefits of reduction from Agriculture: A sector ripe for action



- Based on Shindel et al, 2017
- Clearly shows the feasibility of various components within this sector
- The total societal benefits are very large.
- Other collateral benefits possible?

Study shows feasibility

ENTERIC METHANE MITIGATION POTENTIAL IN BEEF SYSTEMS in Argentina and Uruguay



Source: FAO & New Zealand Agricultural Greenhouse Gas Research Centre, 2017.

- CCAC funded project
- Clearly shows the feasibility of emission reductions
- There could be different gains, but clear gains are possible

Bottom line messages

- Recent science on the climate forcing of methane and health impacts of tropospheric ozone show that addressing methane is even more important from both a climate and health perspective than our understanding a few years back.
- Under current policy scenarios, anthropogenic methane emissions are expected to increase by more than 35% over 2000 levels by 2030.
- There are many potential options still available to mitigate emissions of methane.

Thank you
for
your attention