Some observations from the PCE

New Zealand Agricultural Climate Change Conference, 1 March 2023



Parliamentary Commissioner for the Environment Te Kaitiaki Taiao a Te Whare Pāremata

Warming from emissions to date



Source: PCE, 2019. Farms, forests and fossil fuels.

Warming from emissions to date



Source: PCE, 2019. Farms, forests and fossil fuels.

Livestock methane emissions and warming







Excludes fossil CH₄, biogenic CH₄ from waste, non-agricultural N₂O and fluorinated gases.





Excludes fossil CH₄, biogenic CH₄ from waste, non-agricultural N₂O and fluorinated gases.





Excludes fossil CH₄, biogenic CH₄ from waste, non-agricultural N₂O and fluorinated gases.



Warming from future livestock CH₄ emissions (CCC current policy reference)

- Warming from historical livestock CH₄ emissions
- Warming from future agricultural N₂O emissions (CCC demonstration pathway to 2050, constant from 2050)
- Warming from historical agricultural N₂O emissions
- Warming from future gross CO₂ emissions (CCC demonstration pathway to 2050 reducing to zero emissions in 2100)
 - Warming from historical gross CO₂ emissions

Excludes fossil CH_4 , biogenic CH_4 from waste, non-agricultural N_2O and fluorinated gases.





Warming from future livestock CH₄ emissions (CCC current policy reference)

Warming from future livestock CH₄ emissions (24% reduction)

Warming from historical livestock CH₄ emissions

Warming from future agricultural N₂O emissions (CCC demonstration pathway to 2050, constant from 2050)

Warming from historical agricultural N₂O emissions

Warming from future gross CO₂ emissions (CCC demonstration pathway to 2050 reducing to zero emissions in 2100)

Warming from historical gross CO₂ emissions

Excludes fossil CH₄, biogenic CH₄ from waste, non-agricultural N₂O and fluorinated gases.





Warming from future livestock CH₄ emissions (CCC current policy reference)

Warming from future livestock CH₄ emissions (24% reduction)

Warming from future livestock CH₄ emissions (47% reduction)

Warming from historical livestock CH₄ emissions

Warming from future agricultural N₂O emissions (CCC demonstration pathway to 2050, constant from 2050)

Warming from historical agricultural N₂O emissions

Warming from future gross CO₂ emissions (CCC demonstration pathway to 2050 reducing to zero emissions in 2100)

Warming from historical gross CO₂ emissions

Excludes fossil CH₄, biogenic CH₄ from waste, non-agricultural N₂O and fluorinated gases.



Funding for agricultural greenhouse gas mitigation research



Sources: PGgRc and NZAGRC, The structure of agricultural greenhouse gas research in New Zealand; annual budget documents

Parliamentary Commissioner for the Environment Te Kaitiaki Taiao a Te Whare Pāremata

Funding for agricultural greenhouse gas mitigation research



Remaining funding from \$339m in Budget 2022
CCAAE first three projects (MPI/industry)
CCAAE Joint Venture (MPI/industry)
SLMACC (MPI)
GRA (MPI)
NZAGRC (MPI/MBIE)
PGgRc/RGP (MBIE/industry)

Shows adjusted multi-year appropriations, not actual expenditure.

Excludes funding for inventory development as well as other MPI/MBIE funding such as Sustainable Food And Fibre Futures, the Strategic Science Investment Fund, the Partnered Research Fund and the Endeavour Fund.

Sources: PGgRc and NZAGRC, The structure of agricultural greenhouse gas research in New Zealand; annual budget documents

Parliamentary Commissioner for the Environment Te Kaitiaki Taiao a Te Whare Pāremata