He Pou a Rangi
Climate Change Commission

# Waste and fluorinated gases sector

This summary gives a snapshot of greenhouse gas emissions across three areas: reducing organic waste to landfill, landfill gas capture, and fluorinated gases.

## Overall findings of the 2025 report

- Aotearoa New Zealand is making progress on reducing greenhouse gas emissions – net emissions fell by 2% between 2022 and 2023.
- Emissions are on track for the first budget (for 2022–2025) but will need more work – urgently – to set up for future budgets and the 2050 target.
- Action across a wide range of sectors can strengthen the country's resilience to changing global conditions. There are many viable opportunities for further reductions that could reduce risk for the economy and return other benefits to the country. Read more about further reductions in the waste and fluorinated gases sector in the 'Opportunities for further reductions' section below.

## Snapshot of waste and fluorinated gases emissions

| Total sector emissions |
|---|
| **4.4 $MtCO_2e$** (2022) |
| **4.1 $MtCO_2e$** (2023) |

| Percentage of country's gross emissions |
|---|
| **3.8%** waste (2023) |
| **1.5%** f-gases (2023) |

| Contribution to emissions reductions sought in the second emissions budget period (2026–2030) |
|---|
| **15%** |

| Change in emissions between 2022 and 2023 |
|---|
| **–0.7%** in total waste emissions |
| **–23%** in f-gas emissions |
| **+2%** in total waste to landfill |

# Policy scorecard

Scorecards assess the adequacy of current policy and plans for reducing emissions in each sector, and determine if the risk has increased, decreased or remained the same as in our 2024 assessment.

↑ Increased risk since 2024 ↓ Decreased risk since 2024

| Policy area | Overall risk assessment | |
|---|---|---|
| | EB2 | EB3 |
| Reducing organic waste to landfill | ↑ | ↑ |
| Landfill gas (LFG) capture | ↑ | ↑ |
| Reducing emissions from f-gases | ↓ | ↓ |

No significant risks Significant risks

# Key sector findings

## Changes in emissions

- The total amount of waste sent to landfill continues to rise. It has increased by 33% between 2013 and 2023.
- The decrease in waste emissions between 2022 and 2023 may be due to increased waste diversion or fluctuation in LFG capture levels.
- The amount of methane emissions produced by municipal landfills appears to be steady at 0.4 $KtCO_2e$ per kilotonne of municipal waste disposed to landfill. This suggests that levels of LFG capture efficiency may have plateaued over the last 5–10 years
- The 0.3 $MtCO_2e$ decrease in f-gas emissions between 2022 and 2023 may have been influenced by the slowing of heat pump sales in 2023, with disposal emissions from retired equipment decreasing as a result.

## Policy changes in the last year

- The removal of timebound waste diversion and related emissions reduction targets, Waste Minimisation Fund funding cuts, and removing policies including mandatory food waste collection in urban areas could all affect this sector's emissions reductions.
- The Government is drafting regulations to introduce a regulated product stewardship scheme for synthetic refrigerants. This is expected to reduce emissions by 1.1 $MtCO_2e$ over the second and third emissions budget periods.

## Challenges to achieving planned emissions reductions

- The significant risk assessment reflects policy changes and reduced momentum on organic waste reduction and diversion from landfill, which is likely to increase waste emissions. It also reflects a lack of clarity about how the anticipated 1.9 $MtCO_2e$ reduction through organic waste management and LFG capture will be achieved by 2035.

- While choices made by individuals can reduce waste emissions by diverting organic waste away from landfill, these choices are constrained by the availability of access to infrastructure and services that supports such diversion. Policy actions that support the low-emissions diversion of organic waste are necessary to realise the full potential emissions reduction from waste.

## Areas for attention

- Missed policy opportunities for waste avoidance and reduction are putting increased pressure on reducing methane emissions from agriculture.
- A transparent path is needed to achieve the assumed improvements in LFG capture.
- A strategic resource recovery infrastructure plan, and addressing the associated infrastructure funding deficit, could increase confidence to invest in resource recovery.
- There is a risk that thermal waste energy facilities using non-renewable feedstock may undermine emissions reduction efforts
- There is need for training and accreditation for f-gases handling to reduce leakage, and also to promote alternate refrigerants with lower Global Warming Potential (GWP).

## Opportunities for further reductions

- Additional action to reduce organic waste sent to landfill could result in a further 1.1 $MtCO_2e$ of emission reductions in the third budget period.

## About emissions reduction monitoring

Each year, He Pou a Rangi Climate Change Commission (the Commission) independently monitors Aotearoa New Zealand's progress on reducing greenhouse gas emissions. These reports form a picture over time, showing how the country is tracking towards its climate change goals.

The 2025 report tracks emissions reductions overall, as well as the government's progress towards meeting the first, second and third emissions budgets, which cover 2022–2025, 2026–2030 and 2031–2035 respectively. These emissions budgets are the stepping stones towards the country's 2050 target.

New Zealand's Greenhouse Gas Inventory provides emissions data up until the end of 2023; Stats NZ estimates and Government projections supplement this to provide a more up-to-date picture.

## Want to read more?

There are also summaries of the agriculture; transport; energy, industry and buildings; and removals sectors, as well as on progress, risks and further opportunities centred on iwi/Māori.

The summaries and full report – along with an 'At a glance' overview and a one-page summary of our findings – are on the Commission's website: climatecommission.govt.nz/ERM-2025.