



113-2024

How congruent is Budget 24 with New Zealand's climate commitments?

In this Insight, we assess the degree to which Budget 2024 is consistent with New Zealand's climate change commitments. This is an exploratory approach, which we first used in 2023 to measure the impacts of Budget 2023 spending, including tax expenditure and any major regulatory changes.

Key findings

- New funding is dominated by expenditure determined to be neutral or unfavourable. Of the total spend, 60.6 percent is neutral, 32.8 percent unfavourable, and 1.0 percent favourable.
- Budget 24 does not support New Zealand making progress on moving from the status quo to the level of emissions we are committed to and effectively defers the challenges of transitioning to future years.
- Climate Budget Reviews support congruence with commitments by providing clarity and transparency about the progress New Zealand is committed to. Done well, a Budget can progress collective buy-in to the acceptance of transitioning to a low-emission economy.
- New Zealand is not on track to meet its Paris Agreement commitments without buying international credits.
- Better reporting requirements would help incentivise more transparent action on meeting our commitments.
- We have budgetary tools but aren't utilising them while lagging behind other countries on climate reporting.

Last year, NZIER started reporting on how congruent the government's Budget is with the country's international climate change obligations. This year is the second year we have assessed the degree to which the Budget is congruent with New Zealand's climate change commitments. For more information on how our framework was established, please see NZIER Insight 108.¹

Why is this important?

New Zealand needs other countries to reduce their emissions so that we can experience a reduction in the potential impacts of climate change on our economy, society and environment. If we appear unwilling to meet our own commitments, how can we ask others to meet theirs?

Under the Paris Agreement, New Zealand is committed to net zero emissions by 2050 and a 50 percent reduction of gross emissions by 2030 relative to 2005 levels (New Zealand Government 2021).

Currently, we are not on track to meet our NDCs (nationally determined contributions), as seen in Figure 1. If we fail to achieve our targets, there will be serious fiscal challenges posed along with a wide range of environmental challenges.

¹ <https://www.nzier.org.nz/publications/how-congruent-is-budget-2023-with-new-zealands-climate-commitments-nzier-insight-108>

NZIER INSIGHT

If New Zealand’s domestic emissions reductions fall short of our Paris Agreement commitments, the government will be obliged to purchase international carbon credits.

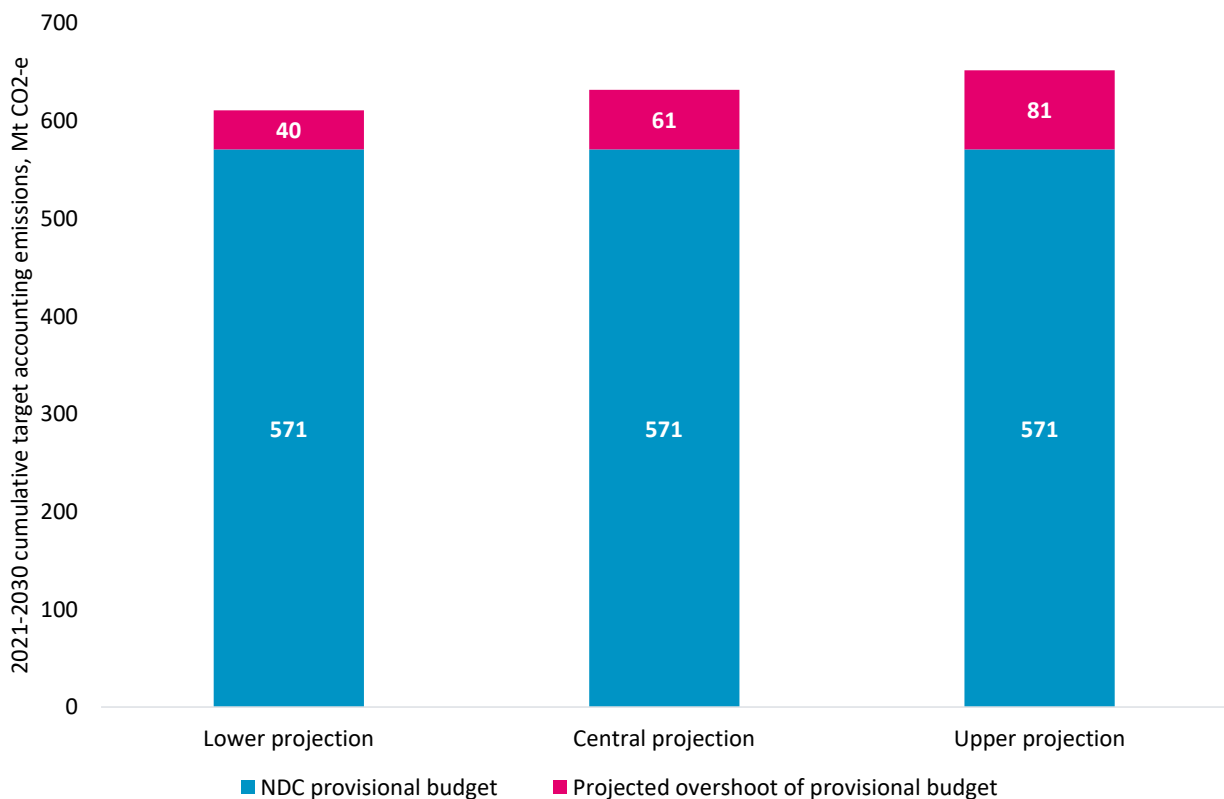
At the carbon price assumed by the International Energy Agency (IEA) for advanced economies, the cost of purchase could range from \$18.3 to \$23.7 billion to cover the shortfall relative to the target overall (Ministry for the Environment and New Zealand Treasury 2023). This represents 4.5–5.9 percent of New Zealand’s GDP as of December 2023. These additional costs are not captured in the government’s accounts, and debt increases as a proportion of GDP if included. The Climate Action Tracker (2023) rates New Zealand’s current climate targets, policies and finance as “Highly insufficient”.

The economy exists within the environment, and the risks of climate change include more droughts, heavier rainfall, wildfires, extreme temperatures and habitat shifts. New Zealand’s agricultural industry and its export value are particularly at risk. Reducing the severity of climate change reduces the likelihood of larger economic impacts.

What is climate budgeting?

Climate budgeting is used to assess environmental trade-offs of policy, incorporating environmental impacts into the budget-setting process (OECD 2020). This tool can enable a consistent and robust analysis of whether the government’s new Budget initiatives will move New Zealand closer to or further away from our NDCs.

Figure 1 Projected domestic emissions overshoot



Source: Ministry for the Environment (2023)

Can we compare this to the previous Budget?

This is the second year that NZIER has reviewed the Budget to understand the expected impact on emissions and congruence with international commitments. It would be natural to compare this to the previous release. Two main reasons make this difficult.

First, the expenditure comparison doesn't account for the efficiency or effectiveness of expenditure, which is critical to assessing the potential environmental impacts (emissions increases or reductions), as the marginal benefit of each dollar will vary.

Secondly, the further New Zealand gets behind its emissions reduction targets, the greater the rate of reduction will need to be in future budgets. This means more and more financial responsibility is committed to each successive government, resulting in a more rapid and painful transition.

Though the government of the day has different aims and objectives from the prior government, it is still formally committed to the Paris Agreement.

To make a fair comparison of emissions impacts, we would need to look at the total reduction of emissions for each project, which is not captured in this document as we weigh distinct categories.

Another way to compare broader environmental expenditure over time is to look at research released by the Parliamentary Commissioner for the Environment (PCE). The PCE's third annual estimate of environmental expenditure incurred by central government agencies in the 2023/2024 fiscal year estimated that for the 2023/24 fiscal year, agencies have budgeted \$3.6 billion for environmental protection and resource management, which compares to \$3.5 billion budgeted in 2022/23 (Parliamentary Commissioner for the Environment 2023). This

differs from our methodology developed last year as it focuses on total levels of spend on six environmental domains.

The PCE analysis provides a time series for understanding environmental commitments and is complementary to NZIER's analysis as it covers additional environmental domains and is backwards-looking.

Approach to measurement

Figure 2 provides a breakdown of how different initiatives will be categorised. This is consistent with the method we applied last year.

What is in scope?

Assessing Budget outcomes is difficult as policy can have positive or negative impacts depending on the metric. Here are the parameters of the analysis that we use.

Scope of assessment

We focus on any new expenditure announced and will provide comments on any new tax changes.²

Timeframe of analysis

The new initiatives in the Budget reflect additional expenditure at one point in time, which is unlikely to represent the total Budget baseline and may misrepresent the overall nature of government spending.

Point of emissions measurement

We focus on emissions at the point of consumption rather than production.

Applying it to the New Zealand 2024 Budget

The government categorises the new Budget expenditures as tax, health and education, law and order, other public services, and infrastructure for growth (Government of New Zealand 2024).

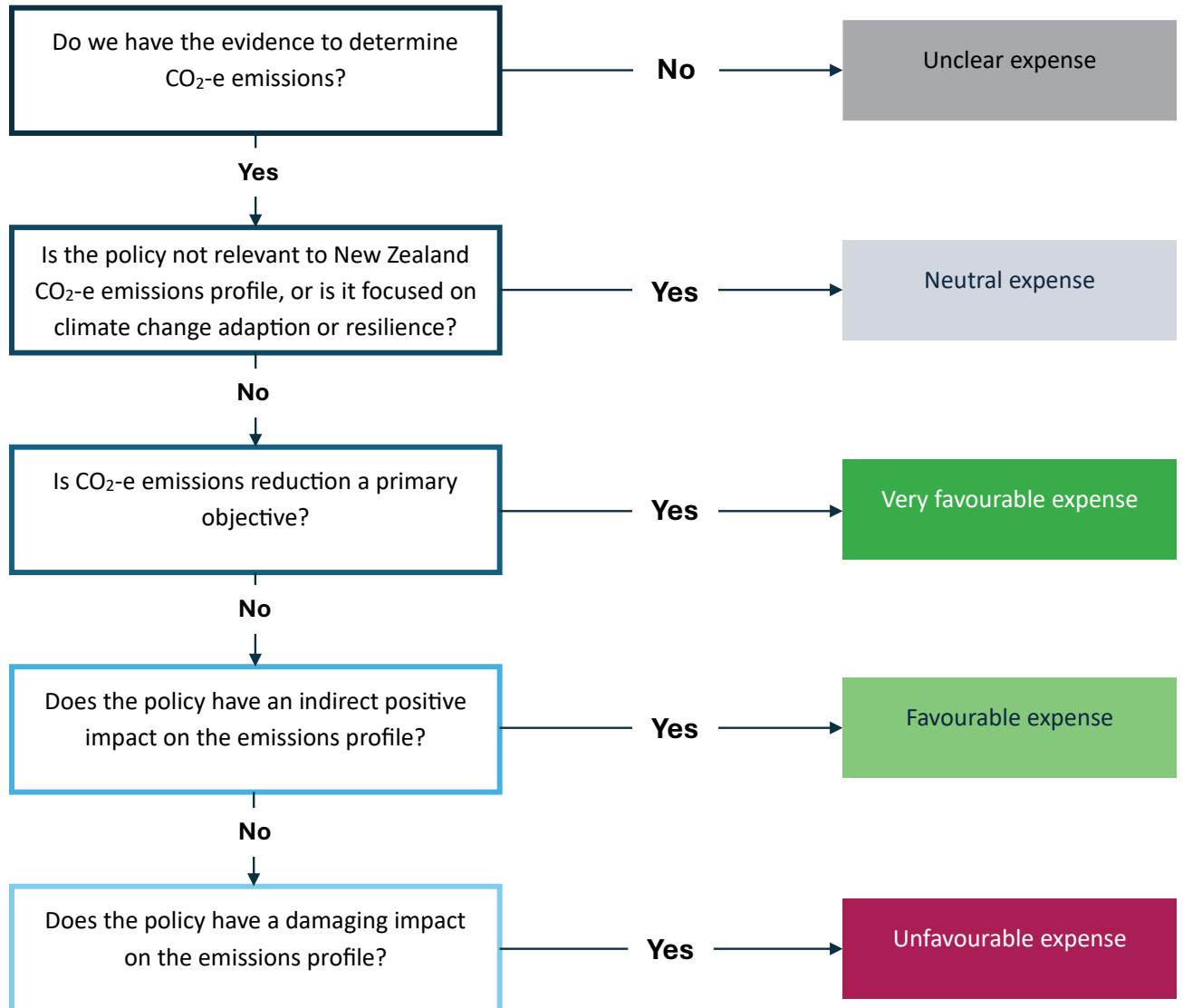
² No new regulatory changes were announced in the Budget, and we do not focus on overall budgets of environmental regulatory agencies.

NZIER INSIGHT

Table 1 captures all new government spending by the key themes and ranks them according to the impact on CO₂-e emissions. The ranking

is based on the information available in the documents.

Figure 2 Decision-making tree



Source: NZIER adapted from NATIXIS Corporate and Investment Banking 2020

Table 1 New Budget initiatives and congruence with climate commitments

Theme, type of spend, and climate budget rating.

Theme	Policy	Total cost	Rating	Justification
Tax	Increasing personal income tax thresholds, extending the income limit for the independent earner tax credit, increasing the in-work tax credit, and the new Family Boost payment.	\$0	Unfavourable	Unfavourable due to the reallocation of the CERF funding that was dedicated to funding decarbonisation and adaptation.
	\$1.77 billion for Pharmac to ensure continued access to medicines New Zealanders rely on.	\$1.77B	Neutral	No effect on emissions.
	\$3.44 billion for hospital and speciality services and \$2.12 billion for primary care and public health.	\$5.56B	Neutral	No effect on emissions.
Health and Education	\$31.2 million to gradually extend free breast screening to 70- to 74-year-olds.	\$31.2M	Neutral	No effect on emissions.
	\$24 million for Gumboot Friday to deliver mental health services to young Kiwis.	\$24M	Neutral	No effect on emissions.
	\$1.48 billion to build new schools and classrooms and to maintain and upgrade existing ones.	\$1.48B	Unfavourable	Increasing infrastructure will increase embedded carbon.
	\$516.4 million to support schools and early childhood education providers, plus \$153.3 million to establish charter schools.	\$669.7M	Unfavourable	Increasing infrastructure will increase embedded carbon.
	\$477.6 million to continue the Healthy School Lunches programme for two years.	\$477.6M	Neutral	No effect on emissions.
	\$67 million to support schools in using the structured literacy approach when teaching reading.	\$67M	Neutral	No effect on emissions.
Law and Order	\$1.94 billion for more frontline Corrections officers, more support for offenders to turn away from crime and more prison capacity, including an expansion of Waikeria prison.	\$1.94B	Neutral	No effect on emissions. Investment in prison infrastructure is a small portion of the total fund, with the remaining focusing on pay.
	\$424.9 million to support frontline policing, including boosting pay and purchasing police vehicles.	\$424.9M	Neutral	No effect on emissions. Investment in police vehicles is a small portion of the total fund, with the remaining focusing on new police and pay.
	\$68.7 million to address youth offending, including a military-style academy pilot.	\$68.7M	Neutral	No effect on emissions.
	\$226.1 million for an extra 500 police officers and additional operational support staff.	\$226.1M	Neutral	No effect on emissions.
Other public services	\$570.7 million for Defence Force pay and projects, including upgrading vehicles, helicopters and infrastructure (and incorporating \$99.2 million of reprioritisation).	\$570.7M	Unfavourable	Increasing infrastructure will increase embedded carbon.
	\$1.1 billion to ensure disabled people can access the essential services, equipment or support they need.	\$1.1B	Neutral	No effect on emissions.
	\$140 million for an extra 1,500 social housing places, delivered by community housing providers.	\$140M	Unfavourable	More housing may increase emissions, but more efficient design could reduce the impact.
	\$48.7 million to support the Te Matatini national festival and bring kapa haka to life in the regions.	\$48.7M	Neutral	No effect on emissions.
Infrastructure for growth	\$4.1 billion of Crown funding for the National Land Transport Fund – a \$1 billion increase to the amount previously signalled – to accelerate priority projects, including the Roads of National Significance.	\$4.1B	Unfavourable	More investment in the status quo will induce emissions. Increasing transport infrastructure will induce demand and large amounts of embedded carbon in production.
	More than \$1 billion for the rebuild and recovery of communities affected by Cyclone Gabrielle and the 2023 Auckland Anniversary floods, including \$939.3 million to repair roads.	\$1B+	Neutral	All expenditure on recovery from climate-related damage is rated neutral.
	\$1.2 billion for the new Regional Infrastructure Fund to invest in resilience infrastructure and regional projects that support economic growth.	\$1.2B	Unclear	An initial \$200 million has been tagged for flood protection but is unclear on the remainder of the expenditure of the fund.

Theme	Policy	Total cost	Rating	Justification
	\$200 million to support KiwiRail to carry out maintenance and renewals on the national rail network.	\$200M	Favourable	Rail plays an important role in reducing transport emissions and road congestion, though it is unclear what the embedded carbon will be in the maintenance and renewal.

Source: Budget 2024, NZIER

So, how congruent was Budget 2024?

Budget 2024 is a backward step in terms of meeting the Paris Agreement as new expenditure is predominately unfavourable or neutral on its impacts on emissions.

The largest negative impacts come from infrastructure investments that will increase emissions through the construction stage. Though new infrastructure will be more efficient, embodied carbon outweighs these gains.

Embedded carbon emissions are created in the building phase of infrastructure, whereas operational emissions are derived from the operation and maintenance of the building (BRANZ 2021). An example of this is social housing; there will be significant embodied carbon during construction, but if it is designed to be more energy-efficient, inevitable operational emissions will be limited.

Additional unfavourable impacts in this Budget arise from funding being cut from various emission reduction initiatives to reduce new expenditure costs. Future revenue raised from the Emissions Trading Scheme (ETS) will not be used for the 'Climate Emergency Response Fund' (CERF); instead, it is being used to fund changing tax brackets damaging emission reductions.

Budget 2022 provided funding to set up the CERF with the intention of supporting the achievement of New Zealand's emission reduction goals. Funded by the CERF, the Transport Choices programme, Vehicle Kilometres Travelled Reduction programme,

and Community Connect programme are focused on lowering emissions from the transport sector. These programmes have all experienced cuts in this Budget despite transport being one of New Zealand's largest sources of emissions (Ministry for the Environment 2022).

Some key areas of funding that have been removed from government expenditure include:

- public transport funding
- Climate Change Commission having funding for programmes cut
- cutting agricultural emissions pricing programmes.³

The new positive funding listed is \$200 million to support KiwiRail in carrying out maintenance and renewals. This is rated positive as rail plays an important role in avoiding transport emissions and road congestion.

Of the new funding, 60.6 percent is neutral, 32.8 percent unfavourable, and 1.0 percent favourable.

Climate risks are economic risks too

The economy exists within the environment, and the risks of climate change include more droughts, heavier rainfall, wildfires, extreme temperatures and habitat shifts. New Zealand's agricultural industry and its export value are particularly at risk. Reducing the severity of climate change reduces the likelihood of economic risks. A clear understanding of the trade-offs we are making

³ These are not listed in the table as it focuses on new expenditure.

NZIER INSIGHT

is also vital for achieving good outcomes for communities.

New Zealand is part of a global community. If we stop working to meet our international emission commitments, how can we expect others to do so?

How to improve the Budget reporting

There is a clear need seen from this analysis that Budget reporting must be improved so we can better understand the impact of uncertain expenditure on emissions and congruence with international commitments.

As set out in Insight 108, there needs to be improved quantification and measurement of the impacts and trade-offs of budgetary spend. Three aspects we identify are:

- 1 **Recognise** the trade-offs and impacts of Budget initiatives on emissions.
- 2 **Quantify** the effects in a standard unit of measure, such as units of CO₂-e.
- 3 **Monetise** the social cost of carbon emissions generated or avoided over the life of the initiative by assigning a shadow carbon price.

The Treasury (2023) has also released guidance on how to account for greenhouse gas emissions within its CBAX tool, which will help undertake analysis of different initiatives' climate change and environmental impacts of larger economic impacts.

Next steps

NZIER will repeat this exercise next year and welcomes comments on the methodology and findings.

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This Insight was written by Daniel Hamill, Thomas Hughes and Michael Bealing at NZIER.

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For further information please contact Daniel Hamill at daniel.hamill@nzier.org.nz or 027 300 0662

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NZIER | (04) 472 1880 | econ@nzier.org.nz | PO Box 3479 Wellington

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