



Submission

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TO THE

Climate Change Commission

ON THE

***Update to the Commission's advice on the fourth emissions budget
(2036-2040)***

BY

Beef + Lamb New Zealand Limited

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Executive summary

Beef and Lamb New Zealand (B+LNZ) appreciates the chance to submit its views on the Climate Change Commission's update of their recommended emissions reduction pathways to align with the changed methane emissions reduction targets (14-24% below 2017 levels by 2050). This submission sets out our views along with a series of recommendations aimed at strengthening the Commission's advice on EB4.

The Commission's should change its Emissions Budget for 2036-2040 (EB4) so that it is in line with the updated methane targets and does not go beyond these. Associated advice should explicitly assess emissions leakage risks, prioritise the resilience of food production, avoid excessive reliance on afforestation, and ensure modelling assumptions around technology adoption, land-use change and production impacts reflect real-world conditions.

New Zealand's current approach places disproportionate pressure on pastoral farming by requiring the sector both to reduce its own emissions and to provide offsetting opportunities for other sectors through afforestation. This creates a dual burden that is not faced to the same extent elsewhere in the economy or the world.

In line with the approach of most other countries, including the EU's recently released strategy on livestock, the focus should be on market-led adoption and the use of carrots (such as carbon credits) to reduce emissions rather than sticks (such as emissions pricing).

New Zealand's climate response should instead prioritise genuine emissions reductions through innovation, improved farm performance, and mitigation technology adoption while maintaining efficient and sustainable food production. The primary way in which emissions are reduced should not be through reduced stock numbers or impermanent offsets. A continued reliance on forestry offsets risks undermining the principles of a just and durable transition for rural New Zealand.

Our recommendations focus on supporting emissions reductions without unnecessary losses in food production, better accounting for emissions leakage risks, improving the robustness of modelling assumptions, and creating the conditions for practical and enduring emissions reductions across the agricultural sector.

RECOMMENDATIONS

B+LNZ recommends that the Climate Change Commission:

1. Change recommended emissions reduction pathways out to 2050 (and associated budgets along the way) to align with the amended methane reduction targets.
2. Apply and utilise a genuine split-gas approach when modelling, assessing, and recommending emissions reduction pathways.
3. Prioritise emissions reductions over offset-driven pathways.
4. Consider additional evidence produced since 2024, including B+LNZ analysis on international policy settings, the economic contribution of the red meat sector, continued afforestation and whole farm plantings, and the EU livestock strategy, and update advice accordingly.
5. Account for and quantify the risk of the updated demonstration pathway's impact on food production, and associated impact of emissions leakage.
6. Continue working with B+LNZ on modelling assumptions underpinning analysis and recommendations, especially before the final advice is completed. This should include seek advice from experts such as AgriZero to assess significant changes in mitigation tools and technologies.

OUR CONTEXT

Beef + Lamb New Zealand (B+LNZ) is an industry-good organisation funded under the Commodity Levies Act 1990 through a levy paid on sheep and cattle slaughtered in New Zealand (excluding bobby calves). B+LNZ represents both Māori and Pākehā sheep and beef farmers and has a mandate to advocate on matters affecting levy payers. Our farmers have already demonstrated a strong commitment to reducing emissions through ongoing improvements in productivity, efficiency, and environmental stewardship.

The sheep and beef sector makes a significant contribution to New Zealand's economic, social, cultural, and environmental wellbeing. Annually New Zealand's red meat sector generates \$48.7 billion in spending across the economy, produces \$12.8 billion in export earnings, creates over 120,000 full-time equivalent jobs and supports one in every 20 jobs across New Zealand.¹

New Zealand farmers produce high-quality food through efficient, largely pasture-based and unsubsidised farming systems. Relative to many international production systems, New Zealand sheep and beef products have a comparatively low emissions footprint per unit of product. In 2022, researchers published peer review science highlighting how



New Zealand's on-farm emissions compare to a range of countries' footprints across the globe.² The research concluded that, even taking into account emissions from transport to export markets, New Zealand beef or sheepmeat's total carbon footprint is lower or very similar to domestically-produced red meat in those nations. This is because New Zealand is so efficient at the farm level, which represents about 90-95% of the total carbon footprint. New Zealand's on-farm footprint was about half the average of the other countries compared in the study.

Using the GWP* method that focuses on warming and accounting for carbon sequestration by trees on farm, New Zealand sheepmeat has not added any additional warming over the last 20-30 years and has arguably had a climate-neutral impact over

¹ <https://beeflambnz.com/advocacy/other-focuses/economic-and-social-value-new-zealands-red-meat-sector-2026>

² <https://www.sciencedirect.com/science/article/pii/S0195925522002128?via%3Dihub>

this time period. This result has come about because the methane produced by sheep in New Zealand has been consistently declining over this time period.³

Sheep and beef farmers are also important stewards of New Zealand's natural environment. They manage approximately 2.8 million hectares of native habitat, including 1.4 million hectares of native forest, representing a substantial proportion of New Zealand's remaining native vegetation.⁴

As land managers and food producers, farmers are already experiencing the impacts of climate change and are adapting their management practices accordingly. B+LNZ recognises that agriculture has an important role to play in reducing emissions and contributing to New Zealand's climate objectives. At the same time, climate policy must support continued food production, thriving rural communities, and enduring environmental outcomes.

Introduction

B+LNZ supports credible, and transparent action to address global climate change. We note the updated methane emissions reduction targets, of a 14-24% reduction on 2017 levels by 2050, which would see methane emissions add no additional warming. This target is comparable from a climate perspective to 'net zero' for CO₂. Achieving these targets will still require sustained efforts and it is important how they are achieved.

The Climate Change Commission's emissions budget pathways have to be updated and aligned with the new methane targets, as they are currently based on the previous methane targets.

The Commission's advice should be also updated to ensure that these targets are not 'overshot' and instead grounded in realistic assessments of technological progress, adoption pathways, land-use change, food production, and community impacts. It should prioritise genuine emissions reductions while avoiding unnecessary economic, social, and environmental costs.

PATHWAYS TO ACHIEVING THE NEW METHANE TARGETS

Achieving reductions through innovation and incentives

B+LNZ supports the use of positive incentives and partnership approaches that encourage voluntary adoption of a variety of technologies and management practices. No single approach will be able to deliver emissions reductions at scale; rather a variety of tools combined across the sector will be required.

³ <https://beeflambnz.com/knowledge-hub/PDF/summary-study-carbon-footprint-new-zealand-sheepmeat-and-beef.pdf>

⁴ <https://beeflambnz.com/knowledge-hub/PDF/desk-top-assessment-native-vegetation-new-zealand-sheep-and-beef-farms.pdf>

Even if tools are available, there are a variety of factors which influence their adoption and suitability. For example, certain tools may only be applicable to certain farming operations or a sub-set of the sector. If they are suitable to an operation, the rate and scale of farmer adoption will be dependant on the support farmers receive to integrate the tool into their farm system.⁵ The CCC's advice should explicitly account for the suitability of tools within different parts of the sector, along with delivery and adoption risk.

We note that the Biological Emissions Reference Group report⁶ concluded in 2018 with Medium/High confidence that a methane inhibitor would be available for extensive pastoral systems by 2025 (which is not the case). Historical projections have overestimated the speed at which mitigation technologies become commercially available. It is thus wise to take a conservative approach to estimates of when mitigation tools supported by entities such as AgriZero will be available and useable for farmers.⁷

Based on analysis⁸ completed after the CCC's advice was completed in 2024 (and then updated earlier this year⁹), nearly all international jurisdictions are focused on incentivising and subsidising their farmers to achieve climate change outcomes, rather than pricing their emissions.¹⁰ Major producing and exporting jurisdictions are directing large-scale public funding toward agricultural emissions reduction, while New Zealand's farmers are expected to adjust within a largely unsubsidised policy framework. If New Zealand were to also put a price on its agricultural emissions this would put New Zealand farmers at an even further significant disadvantage.

This global context has to be taken into account when assessing the practicality and international competitiveness implications of New Zealand's climate change policy settings. Jurisdictions that do not subsidise their agriculture sector (like Australia, Brazil and Uruguay) are already implementing a diverse range of policies to reward their farmers for on-farm activities related to emissions reductions or removals. We strongly recommend the CCC build off the work already completed by B+LNZ to further assess

⁵ See section on farmer extension challenges here

<https://www.climatecommission.govt.nz/assets/Uploads/EB4/supporting-docs/Report-on-agricultural-mitigation-technologies-Final.pdf> as well as a detailed report from the Biological Emissions Reference Group here: <https://www.mpi.govt.nz/dmsdocument/32137-Farm-Behaviour-GHG-Literature-Review-Final-Dec-2018>

⁶ <https://www.mpi.govt.nz/dmsdocument/32125-BERG-Report-FINAL-for-release-6-Dec>

⁷ <https://www.datocms-assets.com/108924/1762374399-agrizeronz-year-in-review-2024-2025.pdf>

⁸ <https://beeflambnz.com/knowledge-hub/PDF/comparing-agricultural-emissions-reduction-targets.pdf#msdyntrid=vYzeZw0ly65sY9JBslANHVgJcwwzrikXBF3J4nT1KDg>

⁹ <https://beeflambnz.com/news/updated-climate-policies-research-shows-competitive-gap-widening-nz-farmers>

¹⁰ For a summary of the 2024 report see here: <https://beeflambnz.com/knowledge-hub/PDF/comparing-agricultural-emissions-reduction-targets-summary>

how other countries are approaching the need to support farmers emissions management and reduction.

To be clear, B+LNZ does not seek any reversal of New Zealand's long-established policy of having almost no agricultural subsidies. Instead of re-considering emissions pricing which would put our sector at an even worse competitive disadvantage, B+LNZ is encouraging a more creative approach.

We support market-led or other creative ways being explored to support the adoption of new technologies by farmers as these come on board and would like a more holistic approach being taken to what farmers can be recognised for.

Examples of the type of incentives that could apply include rebates on the adoption of new technologies, allowing credits through the ETS for on-farm practices and technologies which reduce emissions, better access to bank credit for emissions reduction actions, recognition through the ETS for biodiversity benefits from the sequestration of natives, and grants for pest management of native vegetation areas.

We are encouraged by AgriZero's Early Adoption Accelerator programme which provides partial funding for projects that advance the use of proven emissions reduction tools on New Zealand farms. Meeting the \$250,000 minimum contribution, however could be challenging for smaller entities.

The Commission should work alongside the sector to help define, establish, and monitor the conditions required for successful uptake of these technologies and / or practices. Our aspiration is to achieve emissions reductions at scale and pace without reducing production and thus continuing to meet our markets demands for high-quality red meat products.

Excessive reliance on afforestation

Whole farms have been converted into (exotic carbon) forestry totalling close to 300,000ha between 2019 and 2025.¹¹ This has resulted in a total loss of 3.4 million stock units equating to a reduction of 8.1% of methane emissions since 2019. This has also resulted in a reduction of \$1.8 Billion in red meat export receipts coming into the country. This is not how B+LNZ wants our emissions reduction targets to be achieved.

Previous CCC advice has acknowledged the risks of an overreliance on forestry offsets and that rates of actual forest planting exceeded what was recommend. While B+LNZ acknowledges the restrictions that were introduced in 2025 on whole farm conversions being entered into the ETS, it is concerned that these restrictions do not go far enough.

¹¹ <https://beeflambnz.com/news/farm-conversions-forestry-not-slowing-down-increasing-sales-productive-land>

The current restrictions will do little to limit the main land classes where whole farm conversions have typically taken place.

B+LNZ analysis indicates at least 26,000 ha of whole farms will still be able to be converted and entered into the ETS within land classes 6-7 between 2025 and 2050. Land class 6, in particular, is highly productive land and critical to the sheep and beef sector, and land class 7 is also productive. This would see a further 650,000 ha of sheep and beef farmland converted into forestry between 2025 and 2050.

The 350,000 ha already converted plus an additional 650,000 ha would take the total to 1 million ha of sheep and beef farmland converted into forestry between 2017 and 2050. This amount of land use change would see a 19 percent reduction in the 5 million ha of productive grassland in the sheep and beef sector, and an 18 percent reduction in stock units by 205.

We strongly recommend the CCC consider options for further limits on afforestation to ensure alignment with recommended pathways. For example, B+LNZ would like to see the moratorium on whole farms being entered into the ETS extended to all land classes.

While forestry may provide diversification opportunities for some landowners, large-scale and permanent land-use change also carries risks. For rural communities this includes reduced local economic activity, declining population bases, loss of supporting services, and reduced resilience. Long-term management challenges associated with fire, disease, pests, and climate change further increase these risks.

To be clear, B+LNZ is not against tree planting. B+LNZ supports strategic tree planting, including both native and exotic species, where it complements productive farming systems, improves environmental outcomes and strengthens farm resilience within an integrated landscape approach.

B+LNZ believes emissions reductions should be prioritised over emissions offsetting wherever possible. While planting trees is an effective short-term mitigation, it cannot fully compensate for the warming caused by human-induced fossil fuel emissions. Additionally, with a net zero target that is able to be met with emissions offset activities, there is very little incentive to reduce absolute CO₂ emissions or to properly invest in emission reduction technologies.

In all, forestry offsets should not substitute for meaningful reductions in long-lived greenhouse gas emissions, particularly where doing so undermines productive land use or imposes avoidable social and economic costs.

IMPLICATIONS FOR FOOD PRODUCTION

B+LNZ supports the amended requirement for the Commission to consider impacts on domestic food production when assessing emissions budgets and pathways.

New Zealand meeting emissions reduction targets by simply reducing food production is a poor outcome not only for rural communities, regional economics and the overall New Zealand economy, but also a poor outcome for global food security and the atmosphere. A central consideration in the CCC's updated emissions pathways should be their impact on New Zealand's ability to continue producing food efficiently and sustainably. Recommendations should assess the likelihood of emissions leakage and support lower-emissions food production while strengthening farm resilience and productivity. The challenge is not simply to reduce emissions, but to reduce emissions intensity while maintaining food production.

New Zealand farmers should be empowered to farm better, not simply forced to farm less. New Zealand farmers are among the world's most emissions-efficient producers of red meat, and a reduction in domestic production does not automatically reduce global supply. Where New Zealand reduces production, demand is likely to be met by producers with higher emissions intensities.

Research commissioned through He Waka Eke Noa found that reduced New Zealand beef production would most likely be replaced by exports from countries such as Brazil, Australia, Argentina, the United States, Canada and Paraguay. The study concluded that several of these producers have higher emissions intensities than New Zealand, creating a risk that production reductions here increase global emissions through emissions leakage.¹² This is consistent with the Climate Change Commission's own findings that leakage risks are influenced by international climate policy, trade settings, consumer preferences and actions taken by other countries.

Policies that support innovation, technology adoption and improved environmental performance should be priorities rather than relying primarily on reductions in output. If the only way to achieve emissions targets is through stock reductions, this goes against objectives to maintain, or improve, food production and security. It also would not provide the much needed lower emissions/kg protein sources that the world demands.¹³ Similar approaches are being adopted by other major agricultural jurisdictions.¹⁴

When advising Government, the Commission should assess whether proposed pathways:

- Deliver genuine reductions in domestic and global emissions;
- Maintain or improve food production;

¹² Denne, Tim. 2021. Pricing agricultural GHG emissions: impacts on emissions leakage. Resource Economics. Full resource available on request.

¹³ For further information on the future of meat and meat production in meeting nutritional needs, see the Riddet Institute: <https://riddet.ac.nz/our-research-heading/our-research>

¹⁴ <https://beeflambnz.com/ag-climate-policies>

- Increase resilience of farming operators to climate change impacts;
- Support the economic and social viability of rural communities; and
- Avoid placing New Zealand food producers at a competitive disadvantage internationally.

B+LNZ TECHNICAL FEEDBACK ON CCC RECOMMENDED DEMONSTRATION PATHWAY

B+LNZ welcomes the opportunity to reconsider the assumptions underpinning the fourth emissions budget and associated pathways in light of changes since the Commission's previous advice.

Based on previous CCC modelling projections, reductions in carbon dioxide (54%) - mostly through removals- and biogenic methane (25%) reductions would contribute most to overall reductions in gross emissions in the budget period 2036-2040. The CCC's previous recommended pathway would also see methane reductions of 23% below 2022 levels by 2040 (noting that reductions since 2017 would be likely be greater). These modelled and recommended reductions were heavily reliant on land use change.

As noted above, the CCC's pathways need to be updated to reflect the new methane targets.

We would also like to work with the Commission on unified assumptions in light of updated evidence on afforestation, methane-reduction technologies, and changing sector conditions. Future advice must reflect what is realistically achievable while maintaining food production and rural resilience. B+LNZ intends to submit more technical advice in the assumptions used within the ENZ modelling in the coming weeks. Below, we have outlined some of concerns with the current demonstration pathway.

Concern 1: Costs of afforestation

It is B+LNZ's view that carbon forest planting is not a 'low cost' abatement approach. Replacing red meat production with offset plantings is especially important to consider given the significant economic contribution that our sector makes.¹⁵ Based on analysis completed since 2024 from Business and Economic Research, New Zealand's red meat sector generates \$48.7 billion in spending across the economy each year and supports one in every 20 jobs. The sector generates \$12.8 billion in export earnings annually, which flows through our economy and has a powerful multiplier effect that sees \$133 million a day being spent across New Zealand. More than half of that contribution

¹⁵ <https://beeflambnz.com/advocacy/other-focuses/economic-and-social-value-new-zealands-red-meat-sector-2026>

happens beyond farm-gates and processing plants, flowing through supply chains, local services and household spending, particularly in rural and regional New Zealand.

We are unsure how these impacts are being considered in the CCC's modelling assumptions and whether the loss of red meat production and subsequent economic impacts is adequately assessed.

The effects of afforestation are increasingly becoming visible in national livestock statistics. There is often a lag between land acquisition for forestry and reductions in livestock numbers, but those effects are now flowing through to production and stock estimates. This also has flow on impacts further along the supply chain, including the closing of meat processing and freezing works.¹⁶

In addition to reducing livestock numbers, unmanaged forest planting compounds the already significant impacts of climate change on rural communities. The increased fire and pest risks associated with forest expansion fall disproportionately on the people who continue to live and work in these areas. While most fires originate on pastoral land, poorly managed forests can increase their spread and severity once fires start. As parts of the country become warmer and drier, the likelihood of large, uncontrolled fires also increases.

Forest expansion can also exacerbate pest problems. Animals such as pigs, deer, and goats thrive along forest edges and can reduce crop productivity, hinder pasture management, and damage biodiversity. Without effective control measures, forests can provide ideal habitat for these pests.

Regional communities must share responsibility for managing the costs and risks associated with fire and pests. However, as more pastoral land transitions into forestry, both the frequency and impact of these risks are likely to grow.

Concern 2: Sense checked tool adoption timeframes

In order to adopt novel tools and technologies, farmers will not only need incentives but also implementation support. This is highlighted in the advice provided to the CCC previously about technology adoption:

“There are many factors that affect the rate of adoption and almost all of them would indicate that for environmental best management practices, the majority of these factors would work against rapid uptake....If the average time taken to adopt innovations on-farm through the middle part of the twentieth century was 23 years, when there were clear economic incentives to adopt, and a major extension workforce promoting these innovations, then one could expect a longer time period when most

¹⁶ <https://www.rnz.co.nz/news/country/537241/alliance-group-smithfield-plant-in-timaru-shuts-its-doors-after-138-years>

factors – lack of economic incentives, lack of a large and coordinated extension workforce, coupled with complex, hard-to-measure issues, are working against rapid adoption.”¹⁷

It is extremely challenging for us to provide detailed evidence as to when and how much different mitigation technologies could be adopted as a result of the above. Behavioural factors often determine adoption level and pace more than technology availability. Technical feasibility and realistic adoption are different and should both be assessed.

Farm profitability and business resilience are critical enablers of adoption. Farmers are more likely to adopt new technologies and management practices where policy settings support investment capacity. This is concerning and we recommend the CCC continue engaging with B+LNZ on this and other matters.

We recommend the CCC work with us further to ‘sense’ check some of the modelling assumptions based on the true applicability of the technology. This includes reviewing the ADOPT model where a bolus is likely modelled to be applied to a greater proportion of the cattle herd than the tool is recommended to be used for. We encourage the CCC to seek expert advice from AgriZero and their partners on the likely timeframe to market of different mitigation tools, their suitability to different elements of the red meat sector, and their barriers to uptake.

Conclusions

New Zealand has an opportunity to demonstrate global leadership by reducing warming while maintaining production of some of the world's lowest-emissions red meat. Achieving that outcome requires policy settings that accelerate innovation, support farmer adoption of proven technologies, recognise the value of efficient food production, and avoid unnecessary land-use change that merely shifts emissions rather than reducing them. The Commission's advice should therefore be grounded in realistic implementation pathways, robust economic analysis, and evidence that delivers enduring emissions reductions without compromising rural communities.

¹⁷ Pg 42: <https://www.climatecommission.govt.nz/assets/Uploads/EB4/supporting-docs/Report-on-agricultural-mitigation-technologies-Final.pdf>