

SUBMISSION

7th of July 2023

Mr Grant King - Chair
Climate Change Authority
GPO Box 2013,
Canberra ACT 2601

Via email: consultation@climatechangeauthority.com.au

Dear Mr King,

Re: Response to Issues Paper – *Setting, tracking and achieving Australia’s emissions reduction targets*

Cattle Australia (CA) is the peak industry organisation representing the interests of all Australian grassfed beef cattle producers. Cattle Australia provides clear leadership and direction for the grassfed beef cattle industry by developing and driving contemporary policy, guiding research, development and adoption, and marketing investment for the sector, and advocating on matters important to the Australian cattle industry.

CA welcomes the opportunity to provide the Climate Change Authority with this response to the Issues Paper – *Setting, tracking and achieving Australia’s emissions reduction targets*, for consideration in this key process. CA recognises that beef producers are in a unique position to be an integral part of the solution to climate change, as our sector is custodian to almost 80 percent of Australia’s agricultural land which is over 50 percent of Australia’s total landmass. The Australian beef industry has made a leading contribution to Australia’s emissions reduction targets. The beef industry recorded a 64% reduction in total CO₂e produced in 2020 from a 2005 baseline.¹

To ensure a profitable and resilient future for the beef industry, CA supports a balanced approach to emissions reduction that acknowledges the role our producers play in global food security, the management of our landscapes, the cyclical nature of biogenic methane emissions, and the social and economic costs of emissions reduction on the rural and remote communities in which our producers live and work.

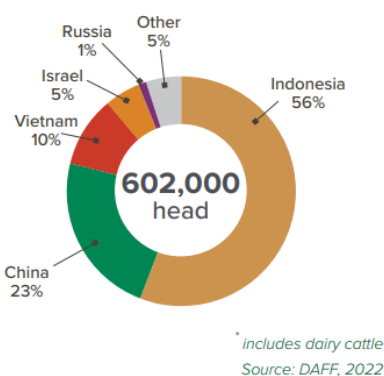
The Australian beef industry

Australia’s beef industry has 28.8 million head of cattle and 52,000 businesses. The total value of cattle production is \$23.2 billion. Around 192,000 people are directly employed in the red meat industry, including on-farm production, processing and retail.

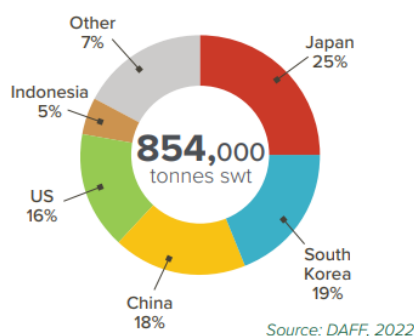
¹ Australian Beef Sustainability Framework (ABSF) Annual Update 2023, available at: <https://www.sustainableaustralianbeef.com.au/resources/annual-update/>

Australia exports between 70% - 75% of all beef we produce, making us the fourth largest beef and veal exporter (after Brazil, India, and the US). In 2022, Australian beef exports totalled 854,000 tonnes shipped weight. The value of total beef and veal exports in 2022 was A\$10.4 billion and Australian live cattle exports totalled 602,000 head exported. For decades, Australia has remained a consistent supplier of high-quality beef to the global market, as well as to the domestic market which consistently consumes almost 30% of total beef production volumes.

Australian live cattle exports*



Australian beef and veal exports



Source: Meat and Livestock Australia's (MLA) Fast Facts – Beef Industry 2023²

Food security and the societal role of meat

CA emphasizes that emissions reduction approaches for the beef sector need to be balanced and consider the importance of food security, nutritional security, and the societal role of meat. Australia's beef producers can continue to play a key role in both sustainable food production and food security with balanced support and the right policy settings in place.

Recommendation: CCA consider that to support Australia's global commitments, global issues such as food and nutritional security and the societal role of meat must be considered and balanced with the need to set, track, and achieve Australia's emissions reduction targets.

In October 2022, a meeting of scientists on 'The societal role of meat' was held in Dublin. The agenda brought evidence-based discussions about the roles of meat in diet and health, a sustainable environment and society and economics and culture. The result was the Dublin Declaration³ now signed by more than one thousand scientists. The CSIRO recently published a paper on the societal role of meat and the Dublin Declaration with an Australian perspective. This provides analysis of the false paradox between plant and animal sourced foods as they both have a role in a sustainable food supply.⁴

² MLA's Fast Facts - Beef Industry, is available at: https://www.mla.com.au/globalassets/mla-corporate/prices--markets/documents/trends--analysis/fast-facts--maps/mla_beef-fast-facts-2023_300523.pdf

³ The Dublin Declaration is available at: <https://www.dublin-declaration.org/>

⁴ Pethick D., Bryden W., Mann N., Masters D., Lean I. 2023. 'The societal role of meat: the Dublin Declaration with an Australian perspective', *Animal Production Science*, CSIRO, available at: <https://www.publish.csiro.au/AN/pdf/AN23061>

The CSIRO paper highlights that public debate around complex societal challenges is often conducted without a strong quantitative base, often leading to suboptimal outcomes in understanding, legislation, and behavior change. This has been most prominent in Europe, but also other western countries, with calls from special interest groups and popular media to reduce meat consumption, especially from ruminants, to reduce global warming.⁵ Calls for consumers to reduce meat consumption to reduce their carbon footprint are simplistic and do not consider the societal, nutritional and environmental benefits of beef production in a sustainable food system.

Recommendation: CCA recommend that government support industry to deliver public education initiatives that combat misinformation about livestock production and help people understand the most helpful changes they can make to reduce their impact on the climate.

Emissions from the beef industry

CA understands that red meat industries contribute roughly 10% of Australia's total greenhouse gas (GHG) emissions and about two-thirds of these emissions come from cattle. Methane stemming from cattle's natural digestion process is the beef industry's main contribution to GHG emissions. Agriculture is the source of only about half of the methane recorded in Australia's National Greenhouse Gas Inventory (NGGI). The remaining methane emissions come from energy, mining and waste sectors.

Recently ABARES released an international comparisons report on sustainability and agri-environmental indicators. A key finding was that Australia's emissions intensities are below average for cattle compared to major developed country producers and exporters, and Australia has reduced agricultural emissions more than most other developed countries in the last 30 years.⁶

Australian cattle producers can sequester carbon on the vast areas of land they manage to reduce their net CO₂e emissions substantially. This makes the Australian beef industry one of the few industries that can potentially offset its own emissions.

The beef industry's emissions reduction goals

CA understands that all sectors of the economy have a responsibility to take action to reduce their impact on the climate. As an industry operating in a global marketplace, our industry policy, and national policy must keep pace with that of our global competitors and the expectations of our customers. The beef industry has been leading the way by supporting the Australian red meat industry goal to be carbon neutral by 2030 (known as CN30).

CN30 was announced by Meat and Livestock Australia (MLA) back in 2017. It was designed to drive investment into research, development and adoption initiatives to reduce industry emissions and send a clear signal to consumers about our industry's commitment to climate action. Industry has been working closely with MLA

⁵ Pethick D., Bryden W., Mann N., Masters D., Lean I. 2023. 'The societal role of meat: the Dublin Declaration with an Australian perspective', *Animal Production Science*, CSIRO, available at: <https://www.publish.csiro.au/AN/pdf/AN23061>

⁶ ABARES Insights Report: Sustainability and agri-environmental indicators – international comparisons report, July 2023, is available here: www.agriculture.gov.au/abares/products/insights/environmental-sustainability-and-agri-environmental-indicators

towards CN30 to ensure the beef industry has a sustainable, low emissions future that is profitable, productive and rewards producers for the land stewardship they undertake.

The carbon neutral definition in the CN30 Roadmap means net zero GHG emissions. This balances emissions of methane, carbon dioxide and nitrous oxide with carbon storage (sequestration in soil and vegetation), measured using Carbon Dioxide-equivalent units. The CN30 Roadmap⁷, developed by MLA is a science-based plan to reach CN30 without compromising on productivity or livestock numbers. Cattle producers, through levies paid to MLA, have put hundreds of millions of dollars into research and development towards achieving CN30. MLA has invested \$200 million since 2017 to progress towards CN30 and has plans to invest a further \$150 million in the development and adoption of new technology.

CN30 progress is independently tracked using the Government’s NNGI data combined with industry data and is reported annually in the Australian Beef Sustainability Framework (ABSF). The ABSF Annual Update for 2023 released on the 8th of June reported the figures in Table 1 below.

Table 1. Emissions reduction progress of the Australian beef industry

Indicator	Data
Percentage total CO2e reduced by beef industry from a 2005 baseline	64.07% (2020)
Net emissions: Mt of CO2e emitted by the beef industry	45.21 (2020)
kg CO2e emitted per kg liveweight when raising beef	13.1 (2020)
kg CO2e emitted per tonne HSCW when processing beef	476 (2022)
Percentage CO2e captured and reused in processing	10.5% (2022)
Carbon sequestered in on-farm vegetation (Mt CO2e)	28.42 (2020)

Source: Australian Beef Sustainability Framework (ABSF) Annual Update 2023, available at: <https://www.sustainableaustralianbeef.com.au/resources/annual-update/>

The figures shown in Table 1 are for 2020 because there is a time lag in availability of the NNGI data from the Government. If the Government could reduce this time lag, it would be beneficial to a range of industries who are trying to track their progress.

Recommendation: CCA recommend that the Government invest resources in improving the timeliness of NNGI reporting, and in continuous improvement of emissions accounting frameworks for the NNGI to enable more accurate, and timely reporting of progress for industries.

Momentum is growing globally around the concept that methane emissions from livestock are different to emissions from burning fossil fuels. It is well understood that methane is a very short-lived GHG with an atmospheric lifetime of around 12 years. Scientists also agree that emissions from livestock are part of a natural carbon cycle that emits little more carbon than is taken in by the plants that the cattle graze on. In contrast, the burning of fossil fuels causes the release of carbon that has been stored underground for millions of years.

⁷ The Australian Red Meat Industry’s Carbon Neutral by 2030 Roadmap, available at: [2689-mla-cn30-roadmap_d3.pdf](#)

Accurate metrics for biogenic methane

A key issue for the beef industry in Australia and globally has been that the conventional metrics used for reporting emissions in Carbon Dioxide-equivalent units can be misleading when applied to methane emissions, particularly when these are being reduced.⁸

CA understands that at a global and national level, the method used for measuring the contribution of different GHGs to global warming is GWP100 which uses an estimate of equivalency to Carbon Dioxide on a 100-year basis to account for the warming caused by short-lived GHGs. GWP100 is widely acknowledged by scientists to have shortcomings in measuring the warming contribution of short-lived GHG emissions such as biogenic methane.

There are a range of more suitable metrics for reporting on methane emissions. CSIRO produced an ‘Assessment of climate metrics for the Australian red meat industry’, in 2021.⁹ This study identified GWP*, Radiative Forcing Footprint and several other more accurate metrics for reporting on emissions from the red meat industry. CA understands that GHG accounting is agreed globally through the Intergovernmental Panel on Climate Change (IPCC). The IPCC has acknowledged that, ‘The choice of emission metric and time horizon depends on type of application and policy context; hence, no single metric is optimal for all policy goals. All metrics have shortcomings, and choices contain value judgments.’

CA understands that the Paris Agreement requires (18/CMA.1, in Article 13 of the Paris Agreement annex) that:

Each Party shall use the 100-year time-horizon global warming potential (GWP) values from the IPCC Fifth Assessment Report, or 100-year time-horizon GWP values from a subsequent IPCC assessment report as agreed upon by the CMA, to report aggregate emissions and removals of GHGs, expressed in CO₂ eq. Each Party may in addition also use other metrics (e.g., global temperature potential) to report supplemental information on aggregate emissions and removals of GHGs, expressed in CO₂ eq. In such cases, the Party shall provide in the national inventory document information on the values of the metrics used and the IPCC assessment report they were sourced from.¹⁰

So, while countries must report using GWP100, they can report supplemental information using other metrics such as GWP* or Radiative Forcing Footprint. Further to this, recent studies have concluded that if the assessment of progress towards a temperature limit of 1.5°C above pre-industrial temperature is the aim, then a metric which acts as a proxy for contribution to temperature will be needed to accurately represent Methane.¹¹

⁸ Allen M., Lynch J., Cain M., Frame D. 2022. ‘Oxford Martin Programme on Climate Pollutants,’ available at: https://www.oxfordmartin.ox.ac.uk/downloads/reports/ClimateMetricsforRuminantLivestock_Brief_July2022_FINAL.pdf

⁹ Ridoutt B., and Mayberry D. 2021. Assessment of climate metrics for the Australian red meat industry., CSIRO, MLA., available at: [b.cch.2117-final-report.pdf \(mla.com.au\)](https://www.cch.2117-final-report.pdf).

¹⁰ 18/CMA.1 Modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement, annex, para. 37., available at: [decision-18cma.1.pdf \(wordpress.com\)](https://www.unfccc.int/documents/1362237/1362237/18cma.1.pdf)

¹¹ Cain M., Jenkins S., Allen M., Lynch J., Frame J., Macey A. and Peters G. 2022 ‘Methane and the Paris Agreement temperature goals’, Phil. Trans. R. Soc. A. available at: <https://royalsocietypublishing.org/doi/10.1098/rsta.2020.0456>

Professor Mark Howden, director of the Institute for Climate, Energy and Disaster Solutions at The Australian National University, [speaking at the Upper Murray beef producer’s forum at Jingellic in May 2023] recently told beef producers that their climate targets must be more realistic. Howden has warned the industry that agriculture is setting itself up to fail on emissions reduction targets that require a net zero emissions approach.¹²

The term ‘climate neutral’ or ‘climate neutrality’ is a climate stabilisation target beginning to be used internationally to refer to the point at which emissions from an activity such as beef production are having no additional impact on global temperature rise. The climate neutral approach is based on IPCC science and is well aligned with the climate stabilisation goal of the Paris Agreement. It is measured using scientifically sound metrics that account for the short-lived nature of Methane such as GWP* or Radiative Forcing Footprint.

Adoption of appropriate metrics for biogenic methane emissions would also enable some beef producers to sell more of their excess carbon sequestration as Australian Carbon Credit Units (ACCUs) and have an alternative income stream, whilst offsetting emissions from other industries.

Recommendation: CCA recommend that Government adopt a more accurate metric such as GWP* or Radiative Forcing Footprint to account for biogenic methane emissions. Where GWP100 must be used, Government policy should not require emissions from beef production to reach a state of net zero emissions as this would be requiring the industry to go beyond climate stabilisation at a significant cost.

Economic and social cost

Under the CN30 goal, MLA has invested significant amounts of cattle producer levies in research and development to find ways to reduce emissions from the beef industry.

Considering that scientists globally have shown that the impact of emissions from beef production on global temperature rise is minimal, the economic, social and environmental cost associated with pressuring our producers to reduce their emissions beyond a climate neutral position needs to be considered carefully. This is especially important given the importance of the beef industry to sustainable food security and the economic, social and environmental benefits that beef production delivers to rural, regional and remote communities.

Much of the pressure to reduce Methane emissions from beef production has come from non-government organisations and activist groups influencing the public. These groups have their own agendas and spread misinformation that is not based on scientific evidence or fact.

The Global Methane Pledge

CA understands that countries joining the Global Methane Pledge agree to take voluntary actions to contribute to a collective effort to reduce global methane emissions at least 30% from 2020 levels by 2030.¹³ CA understands that the ‘Global Methane Pledge’ cannot be achieved by sequestration or offsets, it must be an absolute reduction in methane.

¹²Bernard A. *Professor Mark Howden, ANU, says climate targets should be more realistic, The Land*, published 10th May 2023, available at: <https://www.theland.com.au/story/8168071/stop-chasing-zero-emissions-in-agriculture-climate-expert-warns/>

¹³ Global Methane Pledge (full text) is available at: <https://www.ccacoalition.org/en/resources/global-methane-pledge>

Most of the beef industry's net emissions reductions to date have been via carbon storage in vegetation and increased herd efficiency. After careful consideration the beef industry took a proactive policy position to show the industry's support for Australia signing the Global Methane Pledge in November 2022. This support was contingent on the industry receiving assurances that no additional taxes or targets would be placed on the livestock industries. Industry received these assurances from Minister Bowen when he announced signing the Pledge.

This is a non-binding pledge, and the Australian beef industry has not promised to make any specified reduction in methane emissions under the Global Methane Pledge. It is necessary to remember that the Methane Pledge does not ask that every sector or even every country must reduce Methane by 30% on 2020 levels by 2030.

Recommendation: CCA recommend that Government honour the assurances that they gave on signing the Global Methane Pledge that no additional taxes or targets would be placed on Australian livestock industries; and that Government should invest in technology required to ensure that methane from all non-agricultural sources can be accurately quantified and reported on in the NNGI.

Nature Positive – the bigger picture

CA stresses that emissions reductions from the beef industry need to be considered in a holistic context which includes consideration for the importance of the broader nature positive objectives being set at industry, national and global levels. CA acknowledges the importance of a balanced grazing landscape. Our beef producers are custodians to close to 50 percent of Australia's total landmass. Our beef producers deserve recognition for the vital role they play in caring for Australia's landscapes, managing trees and vegetation, minimising invasive pests and weeds and building healthy soils and watercourses.

Recommendation: CCA consider that a core part of Government's emissions reduction plan must be ensuring that our beef producers receive the financial and technical support necessary to enable them to deliver the environmental stewardship expected by the community and Government, whilst remaining profitable and resilient.

Reviewing the NGER

CA is concerned that reviewing the National Greenhouse and Energy Reporting (NGER) Act could be the first step towards regulating agricultural emissions in Australia with lowering of reporting thresholds on the table. If the lowering of thresholds made it mandatory to report methane emissions from beef production businesses, the costs to individual producers would be significant. Accurate accounting and reporting of on farm emissions is still a difficult, uncertain and technical process. This would require producers to access expertise at a significant cost to their businesses. This would be a substantial compliance burden impacting on the sustainability of the beef businesses that support our rural and remote communities.

Given that it is the NGER Act that underpins the Safeguard Mechanism, CA is concerned about what the potential next steps and costs to industry might be if beef producers were required to report to NGER. Government required heavy industry to report for 10 years before they mandated emission reduction on businesses this year. The beef industry has been very pro-active and clearly demonstrating good progress in reducing emissions so should be excluded from these potential threshold regulations.

Recommendation: Prescriptive regulation of emissions reduction and reporting from the beef industry should not be supported by CCA; this includes changes to the NGER Act that would require mandatory reporting for beef producers.

Government support

CA acknowledges that the current Labour Government has continued to take a supportive approach to emissions reductions from agriculture. The recent Federal Budget released in May included \$158.6 million worth of measures aimed at accelerating adoption of climate-smart, sustainable agricultural practices to help the sector transition to a 'low emissions future'.

Opportunities for additional government support to assist the beef industry and individual producers to achieve emissions reduction targets include:

1. Prioritising development of Emissions Reduction Fund (ERF) Methodologies that encourage adoption of feed supplements and other technology to reduce livestock emissions.
2. Reduce barriers to ERF participation for producers and continue to work towards reducing the high cost of soil baseline testing.
3. Supporting adoption of methane reducing feed additives through incentives that reduce the cost of products, so producers can make a return on their investment; and continuing to fund research work to identify adoptable delivery methods for feed supplements in grass-fed production systems.
4. Finalising Climate Active's Draft *Accounting for Sequestration of Farm Trees methodology*. This will give beef producers more options to reduce emissions in their supply chains and should be prioritised.
5. Implementing the Nature Repair Market (once the Bill has passed through Parliament) and prioritising the development of methodologies for agricultural land holders to deliver and receive payment for ongoing land and biodiversity stewardship to increase their business resilience.

Recommendation: CCA encourage Government to continue to invest in initiatives that engage producers to access the support, technology, and incentives they need to minimize the impact of the cattle industry on the climate, maintain balanced ecosystems and work within the natural carbon cycle.

In conclusion

The beef industry is an export exposed, hard to abate sector, that operates in rural and remote communities. The sector has already made significant investment in research, extension and adoption to reduce its own emissions more than any other sector. An industry led approach to setting, tracking and achieving emissions reduction targets for the beef sector is working. Requirements to reduce methane emissions from beef production need to be considered carefully by both government and industry in terms of the social, economic and environmental benefits and costs associated.

CCA has an opportunity to show global leadership by recommending the use of the most accurate climate metrics and data to inform Government policy. CA recommends that the most accurate metrics for measuring biogenic methane emissions need to be adopted by Government to ensure Australia's climate policy is based on the best science and the most accurate data.

CA looks forward to continuing to assist CCA with this important consultation process, that will help shape the pathway towards a sustainable, resilient, low emissions future for Australia's industries. If there are any queries about this submission, please do not hesitate to contact our office on 1300 653 038 or email ca@cattleaustralia.com.au.

Yours sincerely

Luke Bowen
Chief Executive Officer
Cattle Australia