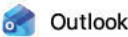


Danish Crown – Response to Mighty Earth’s Report “*Cow in the Room:
Big Meat’s Methane Failure*”



RE: Company Assessment – Methane and Alternative Protein Commitments

From [redacted]@danishcrown.com>
Date Thu 13/11/2025 20:31
To [redacted]@mightyeearth.org>
Cc [redacted]@danishcrown.com>; [redacted]@danishcrown.com>

You don't often get email from [redacted]@danishcrown.com. [Learn why this is important](#)
Dear [redacted]

Apologies for the challenges with our mailing address.
We have addressed the issue.

The reports sounds interesting, we would love to receive it once published.
Will you please ensure that?
When in November do you expect to publish?

We have a couple of comments to the analysis, please see below.
If you have any follow up questions please let me know.

The column "Questions" refers to the first column from your analysis sheet sent to us.
The column "Danish Crown Answer" is why we would argue for another rating and what the new rating should be.
"Reference" should link you to the public information regarding the topic, unless it is in the annual report.

Questions	Danish Crown Answer	Reference
Methane emissions across all scopes (including waste, fuel, energy etc.)	In alignment with the GHG protocol, CSRD and SBTi we disclose our scope 1,2 and 3 emissions in CO2e, this includes methane emissions – we therefore qualify for yellow	Annual report Our targets to reduce emissions - Danish Crown
Methane emissions from meat products reporting SBTi-endorsed	We have SBTi-validated near-term goals and FLAG-targets aligned with the 1.5°C scenarios. P 131-132 annual report. We therefore qualify for yellow. Please also note that we recently had our near-term FLAG targets validated by SBTi	
Traceability policies covering suppliers	We have robust systems to ensure traceability to the group of slaughter animals delivered by the individual farmer, and we also have strict self-check programmes based on Hazard Analysis and Critical Control Points (HACCP) to identify potential food hazards. – we therefore qualify for green	Food safety - Danish Crown

Kind regards,

[redacted]
Sustainability Manager,
Group Sustainability
[redacted]@danishcrown.com



Danish Crown Group
Danish Crown A/S | Danish Crown Vej 1, DK-8940 Randers SV | T +45 89 19 19 19 | CVR-nr. 26 12 12 64
[danishcrown.com](#)

Fra: [redacted]@mightyeearth.org>
Sendt: onsdag, november 12, 2025 16:00
Til: Group Sustainability <sustainability@danishcrown.com>
Cc: [redacted]@danishcrown.com>
Emne: Re: Company Assessment – Methane and Alternative Protein Commitments

Some people who received this message don't often get email from [redacted] [Learn why this is important](#)

Caution: EXTERNAL EMAIL. Please do not open attachments or click links unless you can verify the source of the mail!

Dear Danish Crown Sustainability Team,

I hope this finds you well.

I refer to my below email from Friday, 07 November. Could you please confirm receipt of this email?

As noted in my initial email, please let us know by **14 November 2025** if there is additional information published on your website that you believe we should take into consideration before publishing our report in November.

Thank you and I look forward to hearing from you.

Kind regards,

[Redacted]

[Redacted] I Consultant | mightyearth.org
She/Her | [\[Redacted\]@mightyearth.org](mailto:[Redacted]@mightyearth.org)

From [Redacted]
Sent: 07 November 2025 14:28
To: sustainability@danishcrown.com <sustainability@danishcrown.com>
Subject: Company Assessment – Methane and Alternative Protein Commitments

Dear Danish Crown Sustainability Team,

My name is [Redacted], I am a Consultant at Mighty Earth, which is a global advocacy organization working to protect nature and secure a stable climate. I am writing to inform you of a report we are releasing about ten of the world's largest beef companies.

In the report, we analyze Danish Crown's commitments and actions to reduce methane emissions from meat and minimize the company's overall impact on the climate.

Methane emissions are a powerful greenhouse gas, warming the climate 86 times more than carbon dioxide in the short term. Animal agriculture is the greatest source of methane emissions globally due to enteric fermentation and livestock manure. For that reason, beef companies' climate commitments and action plans should be especially focused on mitigating methane emissions from livestock.

Please find attached a letter with details about your company's performance.

Please review the letter and let us know by **14 November 2025** if there is additional information published on your website that you believe we should take into consideration before publishing our report in November.

Kind regards,

[Redacted]

[Redacted] I Consultant | mightyearth.org
She/Her | [\[Redacted\]@mightyearth.org](mailto:[Redacted]@mightyearth.org)

Marfrig – Response to Mighty Earth’s Report “*Cow in the Room: Big Meat’s Methane Failure*”

MBRF response to Mighty Earth regarding Marfrig's Methane Assessment.

Resposta da MBRF a Mighty Earth Marfrig - Methane Assessment.

First, MBRF would like to thank you for giving us a chance to share our answers regarding the topics made by Mighty Earth in its study, Methane Assessment, about the main meatpacker companies.

A MBRF agradece a oportunidade para esclarecer aos apontamentos feitos pela Mighty Earth em seu estudo Methane Assessment, sobre as principais empresas de carne bovina do mundo.

The company consider this dialogue essential to ensure that sectoral analyses accurately reflect the complexity of the Brazilian cattle supply chain, the decarbonization efforts already implemented, and the company's ongoing commitment to transparency, science, and climate mitigation.

Consideramos este diálogo essencial para que análises setoriais reflitam fielmente a complexidade da cadeia da pecuária brasileira, os esforços de descarbonização já implementados e o compromisso contínuo da empresa com transparência, ciência e mitigação climática.

The document is segmented into distinct parts, and our comments will be shown according to the request for the analysis and explaining them.

O documento de avaliação está segmentado em diferentes partes, e nossos comentários serão organizados de forma correspondente, abordando os itens que requerem esclarecimentos sobre a análise realizada.

Acknowledgement of the role of methane from beef/meat products

Meat production reduction

Meat production reduction	Meat company publicly supports a reduction of meat production and consumption to address climate change.	Meat company publicly acknowledges that a reduction of meat production and/or consumption or how plant-based sales increases can have a positive impact on climate change.	Meat company does not support or acknowledge a reduction in meat production and consumption to address climate change.	
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MBRF fully recognizes the importance of methane emissions within the global climate context and the relevance of the livestock sector in this debate. Recent scientific studies demonstrate that, based on robust evidence and appropriate policies, Brazilian livestock farming can become an essential part of the climate solution. It is already on a clear path towards structural decarbonization by 2050, combining productive intensification, pasture restoration, and zero deforestation.

A MBRF reconhece plenamente a importância das emissões de metano no contexto climático global e a relevância do setor pecuário dentro desse debate. Recentes estudos científicos demonstram que com base científica sólida e políticas adequadas a pecuária brasileira passa ser parte essencial da solução climática, estando em rota clara de descarbonização estrutural até 2050 combinando intensificação produtiva, recuperação de pastagens e desmatamento zero.

That said, it is essential that any assessment of this issue be grounded in two complementary dimensions:

Dito isso, é fundamental que qualquer avaliação desse tema esteja ancorada em duas dimensões complementares:

- The beef supply chain plays a central role in global food security. In 2023, Brazil exported 2.89 million tonnes of beef to more than 130 countries, while maintaining a stable and affordable domestic supply. The FAO emphasises that animal proteins will remain indispensable for balanced diets, public health, and nutritional security.

A cadeia de carne bovina tem papel central na segurança alimentar global. O Brasil exportou 2,89 milhões de toneladas de carne bovina em 2023, abastecendo mais de 130 países, além de manter a oferta interna estável e acessível. A FAO reforça que proteínas animais continuarão indispensáveis para dietas equilibradas, saúde pública e segurança nutricional.

- Mitigation requires a change in the production model, not a reduction in output. According to research by Embrapa, the FAO, and the academic sector, practices such as sustainable intensification, pasture recovery, and improved management can reduce methane emissions per kilogram of beef while maintaining or even increasing production — precisely the approach adopted by MBRF.

A mitigação exige mudança de modelo produtivo, não redução de produção. Conforme pesquisas da Embrapa, FAO e do setor acadêmico, práticas como intensificação sustentável, recuperação de pastagens e manejo aprimorado podem reduzir emissões de metano por quilo de carne ao mesmo tempo em que mantêm ou aumentam a produção — exatamente a abordagem adotada pela MBRF.

Therefore, we consider any model that proposes a reduction in production as a climate metric to be inappropriate. The right path is to strengthen low-emission and zero-deforestation mechanisms, in which MBRF has proven leadership. Based on these considerations, we understand that MBRF meets the requirements of the 'Good-Performance Criteria'.

Assim, entendemos inadequado qualquer modelo que proponha diminuição de produção como métrica climática. O caminho correto é fortalecer mecanismos de baixa emissão e de desmatamento zero, nos quais a MBRF tem liderança comprovada. Baseado nestas colocações entendemos que a MBRF cumpre com os requisitos de "Good-Performance Criteria".

Emissions reporting

Regarding this category, we organize our observations in a segmented way in which we consider relevant to improve the evaluation.

Referente a esta categoria, organizamos nossas observações de forma segmentada, abordando os aspectos que julgamos relevantes para aprimorar a avaliação.

Methane emissions across all scopes (including waste, fuel, energy etc.)

Methane emissions across all scopes (including waste, fuel, energy etc.)	Meat company reports absolute methane emissions (as CH ₄) of all products and operations globally across Scopes 1,2,3.	Meat company reports absolute methane emissions (as CH ₄ /CO ₂ e) of all products and operations across scopes 1, 2 and 3 for one or more regions, but not globally. Or meat company reports absolute methane emissions (as CO ₂ e) of all products and operations globally across Scopes 1,2,3.	Meat company does not report methane emissions.	
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MBRF fully adopts the GHG Protocol Corporate Standard, with annual reporting audited by an independent third party. All emissions are consolidated into CO₂ equivalent (CO₂e), as established by climate science and the IPCC guidelines.

A MBRF adota integralmente o GHG Protocol Corporate Standard, com reporte anual auditado por terceira parte independente. Todas as emissões são consolidadas em CO₂ equivalente (CO₂e), conforme estabelecido pela ciência climática e pelas diretrizes do IPCC.

We emphasize that:

Ressaltamos que:

- MBRF was the first animal protein company in the Americas to have its targets approved by the Science Based Targets initiative (SBTi) in 2022, at the 1.5°C level.

A MBRF foi a primeira empresa de proteína animal das Américas a ter suas metas aprovadas pela Science Based Targets initiative (SBTi), em 2022, no nível de 1,5°C.

- SBTi and the GHG Protocol use CO₂e as the official and sufficient metric for reporting and target assessment.

O SBTi e o GHG Protocol utilizam CO₂e como métrica oficial e suficiente para reporte e avaliação de metas.

- MBRF's inventories include actual data on slaughter, energy consumption, process emissions, and transportation, ensuring broad traceability and auditability

Os inventários da MBRF incluem dados reais de abate, consumo energético, emissões processuais e transportes, garantindo ampla rastreabilidade e auditabilidade.

Therefore, we request a review of the indicator, considering that we fully meet the internationally recognized climate reporting requirements, namely the 'Good-Performance Criteria'.

Dessa forma, solicitamos a revisão do indicador, considerando que atendemos plenamente os requisitos de reporte climático reconhecidos internacionalmente, ou seja, "Good-Performance Criteria".

Methane emissions from meat products reporting

Methane emissions from meat products reporting	Meat company publicly reports its absolute methane emissions (as CH ₄) for all meat products globally - either combined or disaggregated by region/product with global coverage.	Meat company publicly reports its absolute methane emissions (as CH ₄ or CO ₂ e) for all meat products for one or more regions, but not globally. Or meat company publicly reports its absolute methane emissions (as CO ₂ e) for all meat products globally.	Meat company does not publicly report methane emissions (as CH ₄) for its meat products.	
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MBRF has Environmental Product Declarations (EPDs) registered under an independent and internationally recognized program. Each EPD is based on a complete Life Cycle Assessment (LCA), covering everything from primary production to the end of the product's life.

A MBRF possui Declarações Ambientais de Produto (EPDs) registradas em programa independente e reconhecido internacionalmente. Cada EPD é baseada em Análise de Ciclo de Vida (LCA) completa, cobrindo desde a produção primária até o fim de vida do produto.

The Eps:

As EPDs:

- comply with ISO 14025 and 14040/44 standards.
seguem padrões ISO 14025 e 14040/44.

- allow identification of emission hotspots.
permitem identificar “hotspots” de emissões.
- enable international product benchmark.
viabilizam comparações internacionais entre produtos.
- ensure robust and auditable transparency.
garantem transparência robusta e auditável.

These declarations meet the assessed indicator, thus allowing MBRF to be reclassified under the “*Good-Performance Criteria*” category.

Essas declarações atendem ao indicador avaliado, possibilitando assim a reclassificação da MBRF para a categoria Good-Performance Criteria.

Publish annual slaughter number

Publish annual slaughter number	Meat company publishes global animal slaughter numbers annually, broken down by region, and they are third-party verified.	Meat company publishes third-party verified animal slaughter numbers annually for one or more regions, but not globally. Or meat company publishes global third-party verified animal slaughter	Meat company does not provide third-party verified animal slaughter numbers.	
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All information on the slaughter capacity of operational units and performance indicators is publicly disclosed by MBRF in its Integrated Report and Reference Forms.

Todas as informações sobre capacidade de abate das unidades operacionais e indicadores de performance são divulgadas publicamente pela MBRF em seu Relato Integrado e Formulários de Referência.

In addition:

Além disso:

- The emissions inventory is built based on the actual number of animals slaughtered per plant, a figure audited and reported annually.
O inventário de emissões é construído com base no número real de animais abatidos por planta, dado auditado e reportado anualmente.

This level of detail fully meets the methodological requirements of the indicator; therefore, it would be appropriate to review the indicator score assigned to the Company to reflect the ‘*Good-Performance Criteria*’ rating.

Esse nível de detalhamento atende integralmente às exigências metodológicas do indicador, portanto seria adequado a revisão da pontuação do indicador atribuído a Companhia para nota atribuída Good-Performance Criteria.

Reduction commitments and action plans

Regarding the indicators below, we would like to present our specific considerations, ensuring clarity on the points that require adjustments or additional explanations.

Sobre os indicadores abaixo gostaríamos de apresentar nossas considerações específicas, garantindo clareza nos pontos que demandam ajustes ou explicações adicionais.

SBTi-endorsed

SBTi-endorsed	Meat company has SBTi validated near- and long-term net zero targets aligned with limiting the global temperature rise to 1.5°C above pre-industrial levels for scopes 1, 2 and 3, AND the has SBTi validated near- and long-term targets for Forest, Land and Agriculture (FLAG) aligned with 1.5°C scenarios that include a plan to reduce absolute FLAG emissions.	The meat company has EITHER SBTi-validated near- and/or long-term net zero targets aligned with aligned with 1.5°C scenarios (covering Scopes 1, 2, and 3) OR SBTi-validated near- and/or long-term FLAG targets aligned with 1.5°C scenarios.	Meat company has SBTi targets that are not aligned with 1.5°C scenarios, or the retailer has no FLAG targets or made no commitments consistent with SBTi criteria.	
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MBRF is a pioneer in the sector by committing to and having its targets approved by SBTi. The official targets (ID 40013947 on the initiative's portal) include:

A MBRF é pioneira no setor ao assumir e ter aprovadas suas metas pela SBTi. As metas oficiais (ID 40013947 no portal da iniciativa) incluem:

- Absolute reduction of 68% in Scopes 1 and 2 by 2035 (2019 baseline);
Redução absoluta de 68% em Escopos 1 e 2 até 2035 (base 2019);
- Emission reduction trajectory for the supply chain (Scope 3), with a focus on the livestock sector.
Trajetória de redução de emissões da cadeia de suprimentos (Escopo 3), com foco no setor pecuário.

MBRF integrates its climate commitments into corporate governance instruments and reports its progress annually in public reports, such as the Integrated Report and CDP.

A MBRF integra seus compromissos climáticos a instrumentos de governança corporativa e detalha anualmente seus avanços em relatórios públicos, como o Relato Integrado e o CDP.

In light of this, we see a reassessment of the indicator level as positive, recognizing direct alignment at least with the 'Medium-Performance Criteria' level."

Diante disso, entendemos como positiva a reavaliação do nível atribuído ao indicador, reconhecendo o alinhamento direto ao menos com o nível "Medium-Performance Criteria".

Traceability policies covering suppliers

Traceability policies covering suppliers	Meat company's publicly stated traceability policy and operational system to achieve traceability across all cattle supply chains, covers all direct and indirect suppliers across all sourcing regions.	Meat company's publicly stated traceability policy and operational system to achieve traceability across all cattle supply chains covers only direct suppliers across all sourcing regions.	Meat company has no public traceability policy and operational system.	
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MBRF operates the most advanced geospatial monitoring system in the Brazilian beef sector, with 24/7 coverage spanning approximately 25 million hectares — an area equivalent to the United Kingdom.

A MBRF opera o sistema de monitoramento geoespacial mais avançado do setor de carne bovina no Brasil, com atuação 24/7, cobrindo aproximadamente 25 milhões de hectares — área equivalente ao Reino Unido.

Key results achieved, considering the years assessed by Mighty Earth:

Principais resultados alcançados, considerando os anos avaliados pela Mighty Earth:

- 100% of direct suppliers monitored, with automatic blocking in case of detected deforestation.
100% dos fornecedores diretos monitorados, com bloqueio automático em caso de desmatamento detectado.
- Advanced traceability of indirect suppliers, with 2024 recording:
Rastreabilidade avançada de indiretos, com 2024 registrando:

- 88.8% monitored in the Amazon.
88,8% monitorados na Amazônia.
- 79.6% in the Cerrado.
79,6% no Cerrado
- 81.2% across all biomes.
81,2% considerando todos os biomas.
- Target of 100% of indirect suppliers monitored by the end of 2025.
Meta de 100% dos indiretos monitorados até o final de 2025.
- Acceleration of the Zero Deforestation and Conversion target from 2030 to 2025.
Antecipação da meta de Desmatamento e Conversão Zero de 2030 para 2025.

These data are published in the Integrated Report (pages 49 to 61). Considering the level of transparency, ambition, and results already achieved, we believe the classification that best reflects performance is 'Good-Performance Criteria'.

Esses dados constam do Relato Integrado (págs. 49 a 61). Considerando o grau de transparência, ambição e resultados já alcançados, entendemos que a melhor classificação que melhor reflete a performance é a "Good-Performance Criteria".

Executive remuneration linked to methane, plant-based alternative meat, and ESG climate considerations

Executive remuneration linked to methane, plant-based alternative meat, and ESG climate considerations	Both methane reduction targets AND increased plant-based alternative meat production targets are explicitly included in the executive remuneration package, as part of annual bonuses or performance criteria.	Methane reduction targets, OR increased plant-based alternative meat production targets, OR other ESG climate considerations are part of the executive remuneration package.	Methane reduction targets, increased plant-based alternative meat production targets, and other ESG climate considerations are NOT part of the executive remuneration package.	
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MBRF adopts a governance model in which environmental and climate targets have historically been part of the variable compensation indicators for its leadership.

Coordinators and managers have goals related to natural resource consumption, energy efficiency, and operational performance, directly influencing Scopes 1 and 2.

A MBRF adota modelo de governança em que metas ambientais e climáticas historicamente compõem os indicadores de remuneração variável de sua liderança. Coordenadores e gestores possuem metas associadas ao consumo de recursos naturais, eficiência energética e desempenho operacional, influenciando diretamente os Escopos 1 e 2.

The company is currently undergoing a full review and harmonization of its target and compensation system to integrate the best practices previously applied by Marfrig and BRF, ensuring unified strategic alignment. In this redesign, all areas directly involved in the climate and supply chain agenda will have specific KPIs linked to environmental performance, including indicators for emissions, traceability, mitigation, and resource efficiency.

A companhia encontra-se em processo de revisão e harmonização integral do seu sistema de metas e remuneração, de modo a integrar as melhores práticas de até então de Marfrig e BRF de modo a assegurar alinhamento estratégico unificado. Nesse redesenho, todas as áreas diretamente envolvidas na agenda climática e de cadeia de suprimentos terão KPIs específicos vinculados à performance ambiental, incluindo indicadores de emissões, rastreabilidade, mitigação e eficiência no uso de recursos.

This update reinforces the company's commitment to transparency, governance, and the integration of the climate agenda across all executives, meeting the 'Good-Performance Criteria' classification for this indicator.

Essa atualização reforça o compromisso da companhia com transparência, governança e integração da pauta climática a todos os executivos atendendo a classificação "Good-Performance Criteria" deste indicador.

Alternative proteins production and investment

Regarding the indicators below, we present our specific considerations to ensure clarity on the points that require adjustments.

Sobre os indicadores abaixo, apresentamos nossas considerações específicas, com o objetivo de garantir clareza nos pontos que requerem ajustes.

Plant-based alternative meat investment

Plant-based alternative meat investment	Meat company discloses annual total investment amount in plant-based alternative meat production.	Meat company discloses quantitative evidence of investment in plant-based alternative meat production (e.g., mentions specific investments, or facility expansion costs) but does not disclose total annual amounts.	Meat company does not disclose quantitative evidence of investment in plant-based alternative meat production.	
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MBRF consistently invests in protein diversification:

A MBRF investe de maneira consistente na diversificação de proteínas:

- **PlantPlus Foods, a joint venture with ADM, develops and markets plant-based products across the Americas.**
A PlantPlus Foods, joint venture com a ADM, atua no desenvolvimento e comercialização de produtos plant-based em toda a América.
- **The Sadia Veg&Tal line offers a portfolio of plant-based foods focused on accessibility and innovation.**
A linha Sadia Veg&Tal oferece portfólio de alimentos à base de vegetais com foco em acessibilidade e inovação.
- **Cumulative investments exceed USD 135 million in R&D, with ongoing portfolio expansion and capability acquisition.**
Os investimentos acumulados superam USD\$ 135 milhões em P&D, com expansão crescente de portfólio e aquisição de capacidades.

The continuity of investments depends on demand growth, as is the case globally in the alternative protein sector. However, the company already demonstrates active commitment, industrial structure, and a defined strategy — which justifies revising the score to at least *'Medium-Performance Criteria'*.

A continuidade dos investimentos depende da evolução da demanda, conforme ocorre globalmente no setor de proteínas alternativas. Contudo, a empresa já demonstra compromisso ativo, estrutura industrial e estratégia definida — o que justifica revisão da pontuação pelo menos para "Medium-Performance Criteria".

Technological and Farming Solutions

Feed additives

Regarding the following indicators, we have organized our comments in detail, covering the elements we consider essential to strengthen the quality of the assessment.

Sobre os indicadores a seguir, organizamos os comentários de maneira detalhada, contemplando os elementos que entendemos como fundamentais para fortalecer a qualidade da avaliação.

Feed additives	Meat company offers all direct and indirect suppliers opt-in programs that incentivize and support the adoption of methane-reducing feed additives (including through finance and training). Programs are available across all sourcing regions.	Meat company offers opt-in programs or pilots that incentivize methane-reducing feed-additive adoption but these are limited to certain suppliers, regions, or production systems, or do not cover all indirect suppliers.	Meat company does not incentivize the adoption of methane-reducing feed additives amongst suppliers across multiple programmes or pilots.	
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MBRF implements innovative technological solutions to mitigate methane emissions in the livestock supply chain, with emphasis on:

A MBRF implementa soluções tecnológicas inovadoras para mitigar emissões de metano na cadeia pecuária, com destaque para:

- Use of natural additives such as Silvafeed® BX, with potential reductions of up to 17% in enteric emissions in feedlots, according to published scientific studies (more information on page 65 of the Integrated Report available [here](#)).
Uso de aditivos naturais como Silvafeed® BX, com potenciais reduções de até 17% nas emissões entéricas em confinamento, segundo estudos científicos publicados, mais informações na página 65 do relato integrado disponível [aqui](#).
- Sustainable intensification projects and partnerships with producers for pasture recovery and productivity improvement — practices recognized by FAO and Embrapa as essential to reduce emissions per kilogram of beef.
Projetos de intensificação sustentável e parcerias com produtores para recuperação de pastagens e aumento de produtividade — práticas reconhecidas pela FAO e Embrapa como essenciais para reduzir emissões por quilo de carne;

Based on these points, we believe MBRF meets the requirements for 'Good-Performance Criteria'

Baseado nestas colocações entendemos que a MBRF cumpre com os requisitos de "Good-Performance Criteria"

Waste from slaughter

Waste from slaughter	Meat company has a global policy to reduce waste from animal slaughter.	Meat company has waste reduction policy that only applies in some regions.	Company has no policy to avoid waste from slaughtered animals.	
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Circular economy initiatives, such as the reuse of waste and by-products to avoid additional emissions, are already detailed in the Integrated Report and in item 3.5 (page 88), which exclusively describes the company's actions aimed at reducing impacts and mitigating waste generation. Additionally, on page 89, there is a specific highlight box highlighting practices for reusing slaughter by-products, which are the focus of this indicator.

Iniciativas de economia circular, como reaproveitamento de resíduos e subprodutos, evitando emissões adicionais, já são detalhadas no Relato Integrado e no item 3.5 (página 88), descreve exclusivamente as ações da empresa voltadas para reduzir impactos e mitigar a geração de resíduos. Adicionalmente na página 89, há um destaque box específico destacando as práticas de reaproveitamento dos subprodutos do abate, objeto deste indicador.

These actions demonstrate that MBRF already implements technologies aligned with international best practices; therefore, it would be appropriate to classify this indicator under *'Good-Performance Criteria'*.

Essas ações demonstram que a MBRF já implementa tecnologias alinhadas às melhores práticas internacionais, portanto seria adequado, o enquadramento no dentro da classificação "Good-Performance Criteria".

In conclusion

MBRF maintains robust climate commitments grounded in science, transparency, and corporate governance. The data presented demonstrate broad adherence to the evaluated indicators and concrete results in monitoring, emissions mitigation, reporting, and innovation.

A MBRF mantém compromissos climáticos robustos, fundamentados em ciência, transparência e governança corporativa. Os dados apresentados demonstram aderência ampla aos indicadores avaliados e resultados concretos em monitoramento, mitigação de emissões, reporte e inovação.

We reiterate our respect for Mighty Earth's work and request a technical reassessment of the scores, considering the elements presented in this document and all publicly available information disclosed by the company.

Reiteramos nosso respeito ao trabalho da Mighty Earth e solicitamos a reavaliação técnica das pontuações, considerando os elementos apresentados neste documento e todas as informações disponibilizadas publicamente pela companhia.

MBRF remains fully available to clarify any additional points, provide complementary information, or engage in technical dialogue on any aspect of the evaluation.

A MBRF permanece inteiramente à disposição para esclarecer qualquer ponto adicional, oferecer informações complementares ou dialogar tecnicamente sobre qualquer aspecto da avaliação.

MBRF response to Mighty Earth regarding Marfrig's Methane Assessment.

Meat production reduction

The *OECD-FAO Agricultural Outlook 2025-2034* projects an increase in animal protein consumption in urban areas, with global growth estimated at 6% by 2034, particularly in middle-income countries. Conversely, in low-income nations, eradicating hunger and food insecurity by 2030 remains a distant goal. Despite some progress toward global nutrition targets, the world is not on track to achieve SDG 2 (Zero Hunger). Among the critical factors are limited access to quality food and high prices, which prevent millions of people from escaping hunger, as highlighted in the FAO report *The State of Food Security and Nutrition in the World 2025*.

In this context, focusing on reducing animal protein production is misguided, given the expected increase in consumers of this type of food, recognized for its high nutritional value. Furthermore, livestock farming is a cornerstone of the economy in many regions worldwide. In Brazil, for instance, 8.4% of the national GDP comes from beef protein production, according to the *Beef Report (ABIEC)*. Discouraging this sector would reduce household income and hinder regional development, potentially increasing the risks of food insecurity already mentioned.

Proposals to reduce cattle farming activities could exacerbate financial and food insecurity in several areas of the country, widening inequalities, lowering rural incomes, and diminishing quality of life. Therefore, it is essential to assess this issue from both economic and environmental perspectives, seeking a balanced and sustainable approach that avoids depriving thousands of people of their livelihoods, thereby preventing deeper social exclusion and hunger.

Given this scenario, the priority must be to increase production sustainably, acknowledging that a growing population requires safe, high-quality food. In this regard, MBRF continuously invests in advanced technologies to monitor its value chain, ensuring deforestation-free sourcing and minimizing impacts on forests and biodiversity.

We clarify that the mitigation strategies adopted by MBRF are aligned with technical and scientific studies that demonstrate their potential for significantly reducing emissions, including enteric methane, without compromising livestock production.

According to the study *"Methane Emissions Mitigation"*, Brazilian livestock has shown significant progress in improving production efficiency, which contributes to mitigating methane emissions. Based on the document's projections, it is possible to achieve a 23% reduction by 2030 and 33% by 2035 compared to 2020 levels, provided that additional actions are implemented beyond those outlined in the current NDC.

The main strategies proposed by the study include:

- Improvement of animal diets and recovery of degraded pastures.
- Genetic improvement to increase production efficiency.
- Early slaughter, reducing the emission period per animal.
- Manipulation of ruminal fermentation through additives.

These measures represent concrete opportunities to reduce emission intensity in livestock, aligning the sector with climate commitments and global mitigation targets.

Complementing these findings, a technical report prepared by the Agribusiness Study Center of FGV and Abiec, indicates that the combination of zero-deforestation policies, recovery of degraded pastures, sustainable intensification, and the adoption of low-carbon technologies—such as integrated systems and the use of feed additives—can reduce net emissions from Brazilian livestock by more than 85% by 2050, even while maintaining stable production levels.

These projections are supported by measures already being implemented, such as:

- Recovery of degraded pastures and increase in stocking rate;
- Crop-livestock-forest integration (ILPF), with targets defined in the ABC+ Plan;
- Nutritional and zootechnical technologies, including early slaughter and the use of additives that reduce enteric emissions by up to 30%;
- Genetic improvements that boost productivity, reduce methane emissions, and cut carcass-related emissions, fostering a sustainable and efficient livestock sector.

Another interesting point is demonstrated in the study *South America's pasture intensification can increase beef production, reduce emissions by 30% and mitigate warming from methane by 2050*, which shows that pasture intensification in South America can reduce greenhouse gas emissions by up to 30% and mitigate warming from methane by 70–90% by 2050, mainly through improvements in productive efficiency and pasture quality. This occurs because more intensive systems reduce emission intensity (33–50% lower than the projected average for 2050) and increase productivity, allowing beef production to rise by about 43% without expanding pasture areas.

MBRF is already implementing practices aligned with the recommendations of the scientific studies mentioned. These initiatives are directly related to the benefits highlighted in the studies, such as increased production without area expansion and reduced emission intensity.

In recent years, the company has prioritized sourcing more early-maturing animals. Because they are slaughtered at a younger age, these animals emit less enteric methane while maintaining — or even exceeding — the same level of meat production. In Brazil, we observed an average reduction of 4 months in the production cycle and an increase of approximately 30 kg in live weight per animal when comparing 2024 to 2019. In summary, younger and heavier animals deliver higher productivity on the same land area, without deforestation and with lower greenhouse gas (GHG) emissions.

Other key project involves using Silvafeed® BX, a natural tannin-based feed additive from SilvaTeam, in the finishing phase of cattle feeding. Studies indicate this additive can reduce methane emissions from enteric fermentation by an average of 17%.

MBRF has implemented an advanced satellite monitoring platform that operates 24/7. This system enables real-time detection of new deforestation events, immediately blocking any property with irregularities from supplying. Currently, the technology covers approximately 25 million hectares — an area equivalent to the state of São Paulo or the United Kingdom.

Thanks to this innovation, we brought forward our zero-deforestation commitment to 2025, originally set for 2030. Using this methodology, 100% of direct supplier properties have been continuously monitored since 2010.

In addition, MBRF, in partnership with IDH, supports the Sustainable Calf Production Program in Vale do Juruena-MT to promote responsible sourcing from the earliest stages of the supply chain. The program provides technical training, environmental and land regularization, and individual animal traceability. Through a €1.75 million agreement with IDH, MBRF aims to expand initiatives such as technical assistance for small farmers, monitoring impact indicators, intensifying livestock production, and reforestation. In 2024, the program registered 151 new producers (134 small farmers), conserved 31,805 ha of forest, intensified over 1,000 ha of pastures, restored 2 ha of forest, and individually identified approximately 5,000 calves.

The direct quantification of carbon emissions and removals across MBRF's entire beef supply chain is highly complex. This challenge arises mainly from the fragmented nature of the chain (SPOT), regional heterogeneity, diverse management practices, and the lack of standardized primary data from producers.

As an alternative, there are methodologies for indirect estimations. Among these, the Low-Carbon Beef Calculator, launched at COP 30, stands out for incorporating mitigation practices and integrated crop-livestock-forestry systems. Another approach involves the use of emission proxies, developed through life cycle analysis (LCA) and secondary data, enabling correlations between emissions, production systems, and animal characteristics, thereby improving the accuracy and consistency of corporate inventories.

For now, we are unable to reflect these gains in our corporate inventory due to the limitations of the GHG Protocol. The protocol does not provide methodologies to measure the benefits of these practices unless specific emission or removal factors exist for each stage of the production process.

We reinforce our position that any model proposing a reduction in production as a climate metric is inappropriate. The right path is to strengthen low-emission and zero-deforestation mechanisms, in which MBRF has proven leadership. Based on these considerations, we understand that MBRF meets the requirements of the 'Good-Performance Criteria'.

Source: Marfrig's Integrated Report 2024, Pages 49, 57, 61, 65.

Public link: [Sustainability Report 2024 \(Integrated Report\).pdf](#)

Source: The State of Food Security and Nutrition in the World 2025.

Public link: [The State of Food Security and Nutrition in the World 2025](#)

Source: Mitigação das emissões de metano– SEEG, Pages 14, 26-28

Public link: https://seeg.eco.br/wp-content/uploads/2025/09/Brasil2045_Bases_NDC_Metano_2025.pdf

Source: OECD–FAO Agricultural Outlook 2025–2034

Public link: https://www.agri-outlook.org/content/dam/fao-agri-outlook/en/pdfs/AgriOutlook25_ExecSum_EN.pdf

Source: Beef Report 2025

Public link: [Beef Report 2025 | Brazilian Beef Profile – ABIEC](#)

Source: Agribusiness Study Center of FGV and Abiec

Public link: https://abiec.com.br/wp-content/uploads/2025/11/Relatorio_Final_Abiec_2025.07.11_FGV.pdf

Source: South America's pasture intensification can increase beef production, reduce emissions by 30% and mitigate warming from methane by 2050

Public link: <https://www.nature.com/articles/s41598-025-20394-y>

Meat company does not report methane emissions

Since the methane emissions have already been calculated and converted into CO₂e, MBRF decided to publish its complete inventory on the website, including the breakdown of gross GHG emissions across all scopes, as well as the gross methane emissions.

Global GHG Inventory	CH ₄ (ton)	CO ₂ e Total (ton)
Scope 1	3.539,64	300.754,81
Agricultural Activities	492,64	12.316,05
Stationary Combustion	450,21	182.563,54
Mobile Combustion	0,04	140,24
Fugitive Emissions	-	34.782,86
Solid Waste	1,11	6.061,02
Effluent Treatment	2.595,64	64.891,09
Scope 2	-	180.342,77
Market-Based	-	180.342,77
Scope 3	596.727,93	22.492.002,67
Purchased goods and services	594.901,61	22.358.021,59
Fuel- and energy-related activities (not included in scope 1 or scope 2)	-	32.831,82
Upstream transportation and distribution	0,46	44.111,64
Waste generated in operations	1.825,69	53.336,31
Business travel	0,01	1.572,46
Employee commuting	0,15	2.128,84
Total	600.267,57	22.973.100,24

We are working together with the company's IT department to ensure the table is made available on our website, within the [Content Central section](#)

Based on these considerations, we understand that MBRF meets the requirements of the 'Good Performance Criteria' for this topic.

Methane emissions from meat products reporting

We adopted the practice of reporting emissions per tonne produced due to the dynamic nature of our production units, which are characterized by frequent changes in SKUs. This approach ensures greater alignment with operational reality and enables comparability across different periods and product categories. Our current methodology prioritizes production-based indicators (emissions per tonne produced) to address the variability and complexity inherent to production processes.

Publish annual slaughter number

1,693,095.13 metric tons of beef were produced globally in 2023, as reported in the 2024 CDP cycle and publicly available.

The next disclosure will be made public after December 10th, 2025, once CDP releases our FY2024 score (2025 cycle), and represents 1,696,379.98 metric tons of beef produced by MBRF globally in 2024.

In addition, the data on the number of slaughtered heads and the amount of beef purchased is used within our GHG inventory, which is third-party verified, with the Verification Letter public available at our Content Central

Considering that the mentioned data are publicly available and comply with the assessed indicator, MBRF is eligible to be reclassified under the "Good-Performance Criteria" category.

Source: Marfrig's 2024 CDP Disclosure, Page 13.

Public link:

<https://www.marfrig.com.br/pt/Lists/CentralConteudo/Attachments/5/CDP%202024%20-%20Marfrig%20Global%20Foods.pdf>

Source: 2024 GHG Emissions Inventory – Third Party Statement Of Verification

Public link:

<https://marfrig.com.br/en/Lists/CentralConteudo/Attachments/5/2024%20GHG%20EMISSIONS%20INVENTORY%20%E2%80%93%20THIRD%20PARTY%20STATEMENT%20OF%20OVERIFICATION.pdf>

SBTi-endorsed

MBRF has established science-based climate targets that cover scopes 1, 2, and 3, all validated by the Science Based Targets initiative (SBTi). These targets are aligned with the 1.5°C trajectory of the Paris Agreement, representing the highest level of ambition recognized internationally. It is important to highlight that the SBTi, as the global authority in defining corporate decarbonization standards, has formally approved MBRF's approach, including the use of intensity targets for scope 3. This choice is not incidental: in sectors such as animal protein, where global demand for food continues to grow, intensity targets are considered methodologically robust because they ensure emissions reductions per unit of product, even in scenarios of expanding production. To disregard this sectoral specificity is to overlook the very logic of the SBTi and the relevance of its validation.

Furthermore, the adoption of intensity targets does not exclude absolute reductions. On the contrary, by promoting efficiency and mitigation practices throughout the value chain, MBRF achieves absolute reductions in scopes 1 and 2 and ensures that suppliers and partners advance consistently in decarbonizing scope 3. Therefore, the criticism that only absolute reductions should be accepted does not reflect the reality of the methodology recognized by the SBTi. MBRF's trajectory demonstrates a concrete commitment to climate change mitigation and global food security, while ensuring that its targets comply with the most rigorous scientific standards.

Thus, the evaluation that assigns MBRF a Low-Performance Criteria score for considering intensity targets inadequate does not accurately represent the level of ambition and legitimacy of the goals already approved by the SBTi. We reiterate that our targets are fully compatible with the 1.5°C trajectory and represent leadership in the animal protein sector. For this reason, we believe the rating should be revised to fairly reflect the company's climate commitment and the official recognition granted by the SBTi.

Traceability policies covering suppliers

The company's Sustainability Policy, in items 6.1 (page 5) and 8.1.2 (page 8), demonstrates our commitment to zero deforestation, through origin control and traceability. Specifically, item 8.1.2 provides a detailed description of how the company addresses traceability across its entire supply chain. The Sustainability Policy is available on the company's website at the following link: [Sustainability Policy.pdf](#)

Considering that we have a policy publicly available on our website, MBRF is eligible to be reclassified under the "Good-Performance Criteria" category.

ESG renumeration

We provide extensive information on compensation linked to Climate as well as to Water Risk and Forest-related topics in pages 128 to 137 of our CDP response, available on our website at the link below. Between pages 128 and 137, we detail how MBRF ties variable compensation including bonuses, profit-sharing, and short- and long-term incentives; to environmental performance, linking remuneration for roles such as the CSO, directors, managers, and operational leaders to climate (SBTi targets), forests (deforestation-free supply chain), and water (consumption reduction and effluent quality) goals.

Additionally, BRF's CDP disclosure also provides this information. It is important to note that the most recent publicly available CDP data still reflects the two companies separately, as a joint MBRF disclosure has not yet been issued.

Source: Marfrig's 2024 CDP Disclosure, Pages 128 to 137
Public link: <https://www.marfrig.com.br/pt/Lists/CentralConteudo/Attachments/5/CDP%202024%20-%20Marfrig%20Global%20Foods.pdf>

Source: BRF's 2024 CDP Disclosure, Pages 128 to 135
Public link: <https://www.brf-global.com/wp-content/uploads/2025/05/CDP-2024-BRF.pdf>

Considering that all the information required publicly available on our website, MBRF is eligible to be reclassified under the "Good-Performance Criteria" category.

Plant-based alternative meat investment

On pages 37 till 40 of our Animal Welfare Report, MBRF outlines its commitment to plant-based foods and sustainability by highlighting its ongoing research and product development efforts, the integration of sustainability principles across the entire value chain, and its strategy to expand plant-based options that reduce environmental impacts while meeting consumer expectations.

As for investment figures, in our 2022 Sustainability Report on page 28 we stated that "In 2022, we consolidated the expansion of PlantPlus Foods, a company engaged in the production and sale of vegetable-based products. During the period, we completed the acquisitions of the Canadian Sol Cuisine and the North American Hilary's, to which we allocated **US\$ 140 million.**" This information has also been publicly reported in external sources, including Forbes and various other media outlets.

Considering that all the information required publicly available on our website, MBRF is eligible to be reclassified under the "Good-Performance Criteria" category.

Forbes website: <https://www.forbes.com/sites/douglasyu/2022/01/19/plantplus-foods-closes-ca125-million-acquisition-of-sol-cuisine-to-expand-foothold-in-americas-plant-based-market/>

Source: Marfrig's 2024 Animal Welfare Report, pages 37 – 40.

Public link:

https://www.marfrig.com.br/en/Lists/CentralConteudo/Attachments/5/Animal%20Welfare%20Report_Marfrig_2024.pdf

Source: Marfrig 2022 Sustainability Report, page 28

Public link: [Sustainability Report 2022.pdf](#)

Additional information:

News about PlantPlus Foods: [Plant Plus Compra Sol Cuisine Hilarys](#)

PlantPlus website, containing our logos at the bottom of the page: [PlantPlus Foods – A vida vale cada mordida](#)

Feed additives

MBRF recognizes the importance of feed additives (like Silvafeed program) as a tool to reduce enteric methane emissions and therefore encourages their use among suppliers operating in feedlot systems. However, it is essential to highlight that the reality of Brazilian cattle ranching differs substantially from other international contexts. Feedlot finishing represents only a portion of national production, while the predominant practice is pasture finishing. According to the *Beef Report 2025* by the Brazilian Association of Meat Exporting Industries (ABIEC), cattle finished in feedlots accounted for only 19.24% of total slaughters, around 8.84 million heads. This means that more than 80% of the animals slaughtered in Brazil are not feedlot-finished, making the universal application of additives across the entire supply chain unfeasible.

In this context, the requirement to use feed additives in 100% of the supply chain disregards the specific characteristics of Brazilian cattle ranching and imposes a criterion that does not reflect the productive reality of the country. MBRF acts responsibly by promoting and supporting sustainable solutions adapted to local conditions, encouraging the use of additives where technically and practically feasible, while continuing to advance in other emission mitigation strategies in pasture-based production. This approach demonstrates the company's commitment to aligning its practices with the best scientific evidence and the structural characteristics of Brazilian cattle ranching, reinforcing that the evaluation received does not accurately represent MBRF's efforts and leadership in sustainability.

MFG Agropecuária, one of Brazil's largest feedlots and a strategic supplier to MBRF, has fully integrated the Silvafeed additive into its nutritional program. Approximately 15% of MBRF's total cattle volume originates from MFG, in 2025, and 100% of these animals receive Silvafeed.

After evaluating multiple methane-reducing additives, MFG and MBRF identified Silvafeed as the only solution combining economic feasibility with measurable environmental

benefits. Consequently, it was adopted as the primary strategy to ensure consistent performance aligned with the company's sustainability objectives.

Waste policy

Although the Waste and Packaging Policy is not presented as a stand-alone document, the company's Sustainability Policy and Wastewater and Waste chapter clearly demonstrate that MBRF's waste management practices cover all waste streams generated in operations, including slaughter waste (byproducts, residues, organic materials, and non-hazardous waste). Slaughter waste is explicitly part of the "raw material utilization" principle and the waste reduction and reuse initiatives described in the Sustainability Report. These sections encompass everything generated in the production cycle, thus not only packaging. The 100% raw material utilization concept should be understood as a management principle and strategic commitment, rather than a formally codified policy with a fixed deadline. It is not presented as a 'policy' in the formal sense within the Sustainability Policy document; instead, it is an operational ambition aligned with the company's continuous improvement programs.

It is important to note that MBRF manages waste through a structured approach grounded in its Sustainability Policy, which establishes the company's commitment to ensuring full environmental compliance across all operations, including responsible management of waste, effluents, and byproducts. This policy requires the adoption of operational practices that minimize environmental impacts, promote circularity, and ensure legal compliance throughout the production chain.

In our Sustainability Policy, we commit to implementing the full waste management hierarchy: prevention, reduction, reuse, recycling, recovery, and responsible disposal; while ensuring full compliance with local regulations and internal environmental standards. This includes investments in infrastructure, continuous monitoring of waste flows, and adoption of best environmental practices. In the 2024 Integrated Report (pages ~88–90), we provide more detail how these principles are applied across our global operations. Waste generated in slaughter, processing, and packaging is managed through structured programs that prioritize diversion from landfill and valorization of by-products. Organic residues and by-products from slaughter, including bones, fat, hides, and other raw materials; are an intrinsic part of the Company's integrated production model and are systematically directed to value-adding processes such as rendering, leather production, ingredients, fertilizers, or energy recovery.

The report also highlights our progress in raw material utilization, showing that close to 100% of the animal is used through commercial channels or industrial recovery processes, reflecting the company's commitment to resource efficiency and circularity, although this figure reflects *operational performance* and not a formal policy target. Packaging management is also addressed through measures aimed at optimizing materials, reducing environmental impacts, increasing recyclability, and complying with Extended Producer

Responsibility (EPR) requirements in several jurisdictions. MBRF works continuously to optimize packaging design and reduce waste generation across the value chain.

Considering that all the information provided, MBRF is eligible to be reclassified under the “Good-Performance Criteria” category.

Source: Sustainability Policy, pages 5 and 8

Public link:

<https://www.marfrig.com.br/en/Lists/CentralConteudo/Attachments/2/Sustainability%20Policy.pdf>

Source: Marfrig 2024 sustainability Report, page 88-90

Public Link:

[https://www.marfrig.com.br/en/Lists/CentralConteudo/Attachments/3/Sustainability%20Report%202024%20\(Integrated%20Report\).pdf](https://www.marfrig.com.br/en/Lists/CentralConteudo/Attachments/3/Sustainability%20Report%202024%20(Integrated%20Report).pdf)

Minerva – Response to Mighty Earth’s Report “*Cow in the Room: Big Meat’s Methane Failure*”



POSICIONAMENTO

São Paulo, November 17, 2025 – Minerva Foods recognizes that its long-term success depends directly on the sustainability of the ecosystems that support agricultural production. The company has set goals to control illegal deforestation, advance decarbonization, and preserve ecosystem services across its supply chain.

The Company understands that its contribution to addressing climate change is grounded in efficiency gains, emission reductions, and the adoption of technologies and best production practices. Transparency is a central pillar of this agenda, ensuring visibility for all actions implemented.

Greenhouse gas emissions are disclosed annually in the Sustainability Report, prepared in accordance with internationally recognized methodologies and standards. The data is also reported to the [Carbon Disclosure Project](#) (CDP) and made publicly available on its corporate website.

As part of its climate strategy, the company has established several initiatives, including the development and implementation of a program to monitor indirect farms in all South American countries where it operates by 2030, and has already completed 100% of the monitoring of its direct suppliers in the region.

This commitment is materialized through the Global Supplier Management Program, designed to promote compliance, supplier development, and transparency across the entire chain. The program is structured into three fronts: direct suppliers, indirect suppliers, and supplier requalification and reintegration.

Every direct supplying property undergoes a compliance assessment aligned with the Company's [sustainability](#) and [cattle procurement policies](#), both publicly available on Minerva Foods' website, as well as with the legislation of each operating country. Checks are carried out with every new transaction, and if any irregularity is identified, the supplier is blocked in the system, preventing new purchases until the issue is resolved.

The monitoring process undergoes annual independent audits. The most recent assessments, conducted by BDO RCS Independent Auditors, confirmed that 100% of purchases met the socio-environmental criteria established by the Amazon Cattle Supplier Monitoring Protocol and the Public Livestock Commitment (CPP).

Regarding indirect suppliers, Minerva Foods maintains its commitment to advancing traceability and socio-environmental monitoring through protocols, technologies, and tools that ensure compliance throughout the entire beef supply chain.

As disclosed in quarterly reports, there has been significant progress demonstrating consistent work in the strategy of expanding the traceability and monitoring of indirect suppliers through the application of Minerva Foods' Traceability Protocols. The company recorded an increase of over 100% in the volume of animals slaughtered under these protocols compared to the previous quarter, thus constituting a crucial advance in ensuring transparency and robustness throughout the supply chain.



Additionally, the company has expanded and strengthened the Reconecta Program, an initiative focused on the requalification and reintegration of suppliers who were found to be non-compliant with Minerva Foods' socio-environmental criteria for the purchase of agricultural commodities and livestock products. In the first half of 2025, more than 700 cattle ranchers received support to resolve pending issues and return to the formal market.

With respect to its business model and climate commitments, the Company launched the Renove Program in 2021, fostering partnerships with rural producers to promote sustainable, profitable, and low-carbon agriculture. The initiative directly contributes to Scope 3 emission reductions and represents an important step in the transition to a low-carbon economy. As part of Renove, the Company has been developing pilot projects using feed additives capable of mitigating methane (CH₄) emissions from ruminants (information available on page 49 of the 2024 sustainability report).

Minerva Foods reinforces its commitment to transparency, the continuous improvement of its environmental performance, and the maintenance of constructive dialogue on these essential topics.

MINERVA FOODS

Vion Food Group – Response to Mighty Earth’s Report “*Cow in the Room: Big Meat’s Methane Failure*”

Beef Company Analysis

Vion Food Group Assessment Sheet

Dear Mr [REDACTED]

My name is [REDACTED], I am a Consultant at Mighty Earth, which is a global advocacy organization working to protect nature and secure a stable climate. I am writing to inform you of a report we are releasing about ten of the world's largest beef companies. In the report, we analyze Vion Food Group's commitments and actions to reduce methane emissions from meat and minimize the company's overall impact on the climate.

Methane emissions are a powerful greenhouse gas, warming the climate 86 times more than carbon dioxide in the short term. Animal agriculture is the greatest source of methane emissions globally due to enteric fermentation and livestock manure. For that reason, beef companies' climate commitments and action plans should be especially focused on mitigating methane emissions from livestock.

Each company was evaluated solely on publicly available information published on its own website, and the most recent annual or sustainability reports (2023–2024) were assessed. We also accessed details from SBTi's database. The research was conducted between 14 and 27 October 2025. Companies were assessed against 19 key indicators, grouped into five categories reflecting core areas of methane-related climate performance:

- Acknowledgement of the role of methane from beef/meat products
- Emissions reporting
- Reduction commitments and action plans
- Alternative proteins production and investment
- Technological and Farming Solutions

Each indicator was assigned one of three possible performance indicators based on the evidence found:

- Green: The company meets good-performance criteria.
- Yellow: The company meets medium-performance criteria.
- Red: The company meets a low-performance criteria or no evidence was found that the company sufficiently meets the indicator.

The performance of Vion Food Group is summarized below. Please let us know by 14 November 2025 if there is additional information published on your website, which you believe we should review before publishing our report in November.

	Good-Performance Criteria	Medium-Performance Criteria	Low-Performance Criteria	Performance
Acknowledgement of the role of methane and beef and dairy products in climate change and solutions				
Acknowledge role of livestock methane emissions in climate change	Meat company publicly acknowledges the impact of methane from livestock and cattle in relation to climate change.	Meat company publicly acknowledges the impact of agriculture on climate change and refers to cattle or livestock as part of this impact.	Meat company does not mention link between methane and agriculture and climate change.	Green
Meat production reduction	Meat company publicly supports a reduction of meat production and consumption to address climate change.	Meat company publicly acknowledges that a reduction of meat production and/or consumption or how plant-based sales increases can have a positive impact on climate change.	Meat company does not support or acknowledge a reduction in meat production and consumption to address climate change.	Red
Emissions reporting				
Emissions reporting across Scope 1,2 & 3	Meat company accurately reports on its absolute emissions annually in line with the GHG Protocol for Scopes 1,2 & 3.	Meat company accurately reports on absolute emissions for Scopes 1,2 & 3 annually - but do not align with the GHG Protocol.	Meat company does not report across all three Scopes annually.	Green

Methane emissions across all scopes (including waste, fuel, energy etc.)	Meat company reports absolute methane emissions (as CH ₄) of all products and operations globally across Scopes 1,2,3.	Meat company reports absolute methane emissions (as CH ₄ /CO ₂ e) of all products and operations across scopes 1, 2 and 3 for one or more regions, but not globally. Or meat company reports absolute methane emissions (as CO ₂ e) of all products and operations globally across Scopes 1,2,3.	Meat company does not report methane emissions.	
Methane emissions from meat products reporting	Meat company publicly reports its absolute methane emissions (as CH ₄) for all meat products globally - either combined or disaggregated by region/product with global coverage.	Meat company publicly reports its absolute methane emissions (as CH ₄ or CO ₂ e) for all meat products for one or more regions, but not globally. Or meat company publicly reports its absolute methane emissions (as CO ₂ e) for all meat products globally.	Meat company does not publicly report methane emissions (as CH₄) for its meat products.	
Publish annual slaughter number	Meat company publishes global animal slaughter numbers annually, broken down by region, and they are third-party verified.	Meat company publishes third-party verified animal slaughter numbers annually for one or more regions, but not globally. Or meat company publishes global third-party verified animal slaughter numbers annually, but not broken down by region.	Meat company does not provide third-party verified animal slaughter numbers.	
Reduction commitments and action plans				

Net-zero commitment	Meat company has a Net Zero commitment across its entire value chain by 2040 or earlier.	Meat company has a Net Zero commitment across its entire value chain post 2040 but no later than 2050.	The meat company's Net Zero commitment does not cover its entire value chain or has a target date after 2050	
Scope 3 emissions	Meat company has a commitment to reduce absolute Scope 3 emissions by at least 45% by 2030, relative to a 2020 baseline (or earlier).	Meat company has a commitment to reduce absolute Scope 3 emissions by at least 30% but less than 45% by 2030, relative to a 2020 baseline (or earlier).	Meat company does not have an absolute Scope 3 emission reduction commitment or this is less than 30% by 2030, relative to a 2020 baseline (or earlier).	
Methane specific commitment	Meat company has a public commitment to reduce absolute methane emissions across its value chains by at least 45% by 2030, relative to a 2020 baseline (or earlier).	Meat company has a target to reduce absolute methane emissions across its value chain by at least 30% below 2020 levels by 2030 or a commitment to reduce them by at least 45% no later than 2040.	Meat company does not have or has an insufficient methane-specific reduction commitment.	
Validated methane reduction action plans	Meat company has a third-party verified action plan to meet its 45% methane reduction targets by 2030 across its entire value chain.	Meat company has a third-party verified action plan to reduce methane emissions by 30% by 2030 across its entire value chain.	Meat company does not have a third-party verified action plan to reduce methane emissions across its entire value chain.	
SBTi-endorsed	Meat company has SBTi validated near- and long-term net zero targets aligned with limiting the global temperature rise to 1.5°C above pre-industrial levels for scopes 1, 2 and 3, AND the has SBTi validated near- and long-term targets for Forest, Land and Agriculture (FLAG) aligned with 1.5°C	The meat company has EITHER SBTi-validated near- and/or long-term net zero targets aligned with aligned with 1.5°C scenarios (covering Scopes 1, 2, and 3) OR SBTi-validated near- and/or long-term FLAG targets aligned with 1.5°C scenarios.	Meat company has SBTi targets that are not aligned with 1.5°C scenarios, or the retailer has no FLAG targets or made no commitments consistent with SBTi criteria.	

	scenarios that include a plan to reduce absolute FLAG emissions.			
Traceability policies covering suppliers	Meat company's publicly stated traceability policy and operational system to achieve traceability across all cattle supply chains, covers all direct and indirect suppliers across all sourcing regions.	Meat company's publicly stated traceability policy and operational system to achieve traceability across all cattle supply chains covers only direct suppliers across all sourcing regions.	Meat company has no public traceability policy and operational system.	
Executive remuneration linked to methane, plant-based alternative meat, and ESG climate considerations	Both methane reduction targets AND increased plant-based alternative meat production targets are explicitly included in the executive remuneration package, as part of annual bonuses or performance criteria.	Methane reduction targets, OR increased plant-based alternative meat production targets, OR other ESG climate considerations are part of the executive remuneration package.	Methane reduction targets, increased plant-based alternative meat production targets, and other ESG climate considerations are NOT part of the executive remuneration package.	
Alternative proteins production and investment				
Plant-based alternative meat production targets	Meat company has set a global target to produce 10% plant-based alternative meat products by 2030.	Meat company has set a global target to produce 5% plant-based alternative meat products by 2030.	Meat company does not have any or does not have sufficient global targets for plant-based alternative meat production.	
Plant-based alternative meat investment	Meat company discloses annual total investment amount in plant-based alternative meat production.	Meat company discloses quantitative evidence of investment in plant-based alternative meat production (e.g. mentions specific investments, or facility expansion	Meat company does not disclose quantitative evidence of investment in plant-based alternative meat production.	

		costs) but does not disclose total annual amounts.		
Plant-based alternative meat production and own-brand products	Meat company offers a wide range of at least three distinct plant-based alternative-meat product lines (e.g. burgers, mince, sausages, cold cuts) available across multiple regions in its global value chain.	Meat company offers a limited range (at least two plant-based alternative-meat products) and/or these products are available only in a limited number of markets within its value chain.	Meat company does not offer a range of plant-based alternative meat products in its global value chain.	
Report on plant-based alternative meat sales	Meat company reports on its total sales of plant-based alternative meat production across its global value chain and as a proportion of its global protein sales.	Meat company reports on its total sales of plant-based alternative meat production across its global value chain but does report them as a proportion of its global protein sales.	Meat company does not report its total sales of plant-based alternative meat production across its global value chain.	
Technological Solutions				
Feed additives	Meat company offers all direct and indirect suppliers opt-in programs that incentivize and support the adoption of methane-reducing feed additives (including through finance and training). Programs are available across all sourcing regions.	Meat company offers opt-in programs or pilots that incentivize methane-reducing feed-additive adoption but these are limited to certain suppliers, regions, or production systems, or do not cover all indirect suppliers.	Meat company does not incentivize the adoption of methane-reducing feed additives amongst suppliers across multiple programs or pilots.	

Waste from slaughter	Meat company has a global policy to reduce waste from animal slaughter.	Meat company has waste reduction policy that only applies in some regions.	Company has no policy to avoid waste from slaughtered animals.	
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Kindly send your reply to [REDACTED] [@mightyearth.org](mailto:[REDACTED]@mightyearth.org)