

CORPORATE PROFILES: LACK OF REAL ACTION IN BIG MEAT AND DAIRY CLIMATE PLANS





INTRODUCTION

The meat and dairy sectors' focus on 'corporate social responsibility' efforts give their current business a green makeover, even as investor networks such as FAIRR are highlighting increased climate risks for large scale intensive livestock operations.¹⁰⁸ Instead of embracing the inevitable, a shift to a healthy, more plant based diet, companies are working hard to preserve the status quo as shown in section 2.3 of the report.

This **special inset of the report** explores in more detail the insufficient climate change mitigation plans of 10 corporations, some operating globally, but also some that are of national or regional relevance. The profiles are divided by sector (meat companies followed by dairy) and ranked by methane

emissions starting from the largest emitters. Together, these profiles provide a glimpse of 'the wild west' nature of these companies' climate plans; demonstrating the flawed approach to climate mitigation of meat and dairy companies which is systemic across geographies. These plans lack consistent and harmonised benchmarks and targets across companies. Their self reported data lacks independent verification. This makes it impossible to compare companies and their progress towards real climate action. They reveal that their climate plans remain largely a public relations exercise, particularly since the bulk of these companies' emissions lie under Scope 3 which are the emissions stemming from the animal products they process in their supply chains.

MEAT COMPANIES

 JBS S.A. 			
HEADQUARTES	BRAZIL		
ANNUAL TURNOVER (2023)	US\$ 72.9bn ¹⁰⁹		
CEO	GILBERTO TOMAZONI		
PRODUCTION CAPACITY (HEADS/DAY, 2023) ¹¹⁰	CATTLE: 75,741	PIGS: 131,500	CHICKEN: 13,800,000

The group

JBS claims to be the largest meat producer globally¹¹¹, number 1 in beef and poultry production and number 2 for pork¹¹². It also engages in aquaculture, prepared foods, and, more recently, in plant-based protein alternatives.¹¹³ In its 2023 results presentation to investors¹¹⁴, the company lists massive investments into expanding meat production, amounting to over US\$600 million*, with its business strategy for future expansion clearly set on growth in the meat sector.

* New Seara factory with lines for breaded chicken and sausages, in Rolândia (PR), Brazil: R\$1bn (~US\$200)
 New Principe Foods factory, in Columbia (MO), USA (for Italian meats and charcuterie): US\$200mil
 Expansion of the lamb unit in Cobram, Australia: US\$20mil
 Expansion of the cattle unit of Friboi in Diamantino (MT), Brazil: R\$800mil (US\$160mil)
 Modernization of the largest chick hatchery in Brazil, located in Rolândia (PR): R\$135mil (US\$27mil)

“Our future growth story is supported by global industry growth indicators that project ... a 70% increase in demand for animal protein.” (JBS, 2023)¹¹⁵

No such investments are listed in this report for their production of plant-based protein though the company claims to be the number 1 producer of plant-based protein in Brazil and number 3 in Europe.¹¹⁶ Their main vegan brand is Netherlands-based Vivera.¹¹⁷ When JBS took over Vivera in 2021, that company’s turnover reportedly amounted to US\$100 million, corresponding to 0.2% of JBS’s global turnover in the same year.¹¹⁸

The Group’s climate action

JBS released a ‘Net Zero Pledge’ in March 2021,** committing to reduce its Scope 1

** As of the writing of this report, this pledge has been taken offline, the [JBS web-site dedicated to this pledge](#) now refers back to the [company’s homepage](#). This



and 2 emissions by at least 30%, compared to those of 2019, with all ‘residual’ emissions to be offset. In its subsequent Sustainability Report for 2022¹¹⁹ and also in that for 2023¹²⁰, this goal was further clarified to apply to a reduction of 30% of emission **intensity**, only. No evidence was found for a reduction commitment on the company’s Scope 3 emissions in its Net Zero Pledge or in any of the two subsequent Sustainability Reports. The 2023 Sustainability Report, again not including concrete reduction targets on Scope 3, states on this: “...we *strive to achieve our goal to reduce the intensity of Scope 3 emissions through collaborative initiatives that improve both the environmental and financial performance of our supplier partners.*”¹²¹

In its 2022 Sustainability Report, JBS announced plans to develop “a robust Net Zero Roadmap that outlines our priorities and guides our actions over the next 17 years.”¹²² The Net Zero Roadmap is not mentioned in its most recent 2023 Sustainability Report. Also

might well be related to recent decisions from bodies in the US and a lawsuit on JBS’s misleading claims (see Box “Company challenged on misleading environmental claims”). The actual pledge can still be accessed via archive.org. Quote from this pledge: “até 2030, a JBS reduzirá em pelo menos 30% as suas emissões dos escopos 1 e 2, em comparação com as de 2019.”

an extensive search of publicly available data in September 2024 by the authors failed to reveal any such roadmap.

In its 2022 Sustainability Report,¹²³ JBS reported investments into the reduction of Scope 1 & 2 emissions amounting to US\$123 million. In 2023, the company reported to have increased this investment to US\$150 million,¹²⁴ i.e. adding a mere US\$27 million in one year. According to JBS, 97% of its total emissions come from its Scope 3 supply chain emissions.¹²⁵ Yet investments into Scope 3 climate action were limited to a mere US\$5 million in 2022¹²⁶, with no increase in 2023¹²⁷. This investment in the reduction of Scope 3 emissions thus represents 4% of their investments in the reduction of Scope 1 & 2 emissions, 1.5% of their advertising budget and 0.06% of the company’s gross profit in 2023.¹²⁸

In its 2023 Sustainability Report¹²⁹ JBS finally released absolute emission numbers for Scope 1, 2 and 3, claiming decreases against the 2019 baseline across all three Scopes. JBS notes on the reported emission estimates, that it omits to include “*emissions associated with land use change as those calculations are currently being improved.*”



Company challenged on misleading environmental claims

In April 2024, the State of New York sued JBS for violating the state's consumer protection rules.¹³⁰ JBS had allegedly ignored a recommendation by an industry advertising board* - also subsequently upheld by this board's appellate body¹³¹ - to cease making *"unsubstantiated and misleading"*¹³² claims to become net-zero by 2040. The state noted that the JBS Group planned to *"substantially increase its meat production over the coming years"* and therefore cannot *"feasibly meet its pledge because there are no proven agricultural practices to reduce its greenhouse gas emissions to net zero at the JBS Group's current scale, and offsetting those emissions would be a costly undertaking of an unprecedented degree."*¹³³ The state is demanding both civil penalties and *"all profits and ill-gotten gains"* from the violations¹³⁴ and could set an important and costly precedent in holding livestock companies accountable for their greenwashing.

* The National Advertising Division ("NAD") of the Better Business Bureau in the United States

The only measure to reduce emissions from livestock addressed extensively in JBS' 2022 sustainability report is feed additives. The company presents at length its financial contribution to research into 'scalable feed additives', at a time when the first such additive ('Bovaer') had already been approved by Brazil's regulatory authorities.¹³⁵ As of 2023, JBS continues *"to research and trial the best available enteric methane reducing technology in its feedlot operations"*.¹³⁶ In its reporting, JBS seems to fail to explain how feed additives could be distributed to the free-ranging cattle that much of JBS's production, for example in Brazil, is based on.¹³⁷ More recently, JBS reportedly has also focused on the production of biogas from livestock manure as part of its climate initiatives.¹³⁸

In conclusion, it appears that JBS has yet to start tackling its Scope 3 emissions which stem from the number of livestock the company processes and which are the lionshare of its emissions. This might be due to the fact that JBS regards them as *"resulting from other activities in a supply chain and outside the direct management and influence [of JBS]"*.¹³⁹ Reducing the number of livestock that the company processes is under its direct influence, but JBS provides no indication of intent to move away from animal-protein based products, for instance, to those based on plant-protein. To the contrary, in recent years, JBS, alongside other companies, is reported to have invested millions into marketing to embed livestock farming and eating meat even deeper into the Brazilian culture, under the slogan - *"Agro is tech, Agro is pop, Agro is everything"*.¹⁴⁰


BIGARD

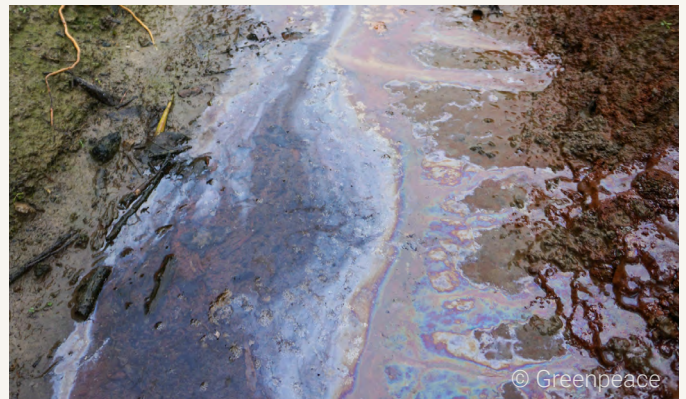

HEADQUARTES	FRANCE	
ANNUAL TURNOVER (2023)	US\$ 5.95bn ¹⁴¹	
CEO	JEAN-PAUL BIGARD	
PRODUCTION (T/YR, 2023) ¹⁴²	BEEF: 455,040	PORK: 474,000

The group

Bigard claims to be the “1st beef” and “3rd meat processor” in Europe, marketing under well-known brands such as Charal, Bigard, and Socopa. Bigard also exports globally, to over 30 countries in Europe, Asia and Africa.¹⁴³

The Group’s climate action

Bigard’s corporate social responsibility report from 2023 includes an emission reduction target only for Scope 1 & 2 - 10% “in the next 4 years”. In this report, Bigard also claimed reductions of 28% on Scope 1 and 42% on Scope 2 in 2022, against a 2011 baseline, on average, 2.8% per year for both Scopes combined. Bigard’s commitment for the next 4 years (2.5% reduction per year) thus represents a continuation of this trajectory if not declining ambitions. No action plan has been presented in the report. Scope 3 emissions do not seem to exist for Bigard. They are not mentioned at any point in the sustainability report. To the contrary, the sustainability report stresses the need to



maintain their meat production. The final section of the report is entitled ‘*The benefits of meat*’, highlighting the health benefits of meat and encouraging consumption. The company selectively chooses a metric different from that used in official dietary guidelines to make them more favourable for the beef industry, stating “*The current National Health Nutrition Programme recommends a maximum consumption of 700 to 750 grams of raw meat.*”¹⁴⁴ The French National Health Nutrition Programme recommends consuming no more than 650g of meat (500g of meat (excluding poultry)¹⁴⁵ and 150g of ‘charcuterie’¹⁴⁶). Bigard’s mindset is clearly not made for a 1.5°C pathway.


CREMONINI


HEADQUARTES	ITALY	
ANNUAL TURNOVER (2022)	US\$ 4.9bn ¹⁴⁷	
CEO	VINCENZO CREMONINI	
PRODUCTION (T/YR, 2022) ¹⁴⁸	BEEF: 439,251	PORK: 40,000

The Group

The Cremonini Group (Cremonini S.p.A) mainly operates through three majority-owned subsidiaries: Inalca S.p.A., Chef Express S.p.A., and MARR S.p.A., covering production, catering, and distribution, respectively.¹⁴⁹ Cremonini, through Inalca, claims to be the leading processor of beef in Italy, and a major one in Europe, with the capacity to raise 180,000 cattle per year in Italy.¹⁵⁰ It also claims to be a leading operator in the pork, bacon, cured meats & snacks sector in Italy.¹⁵¹ In 2018, Inalca signed a supply chain agreement with McDonald's Italia to increase quality across the entire supply chain, from breeders to the final beef burger in McDonald's then 670 restaurants in Italy.¹⁵²

The Group's climate action

In its 165-pages-long Sustainability Report 2022, Inalca dedicates four pages to its impact on climate change: two pages for how they measure emissions, and two pages for tables and charts detailing its Scope 1-3 emissions. Commitments to reduce these emissions are not listed. Inalca points to having signed the commitment for the establishment of a near-term target under the Science-Based Target Initiative. According to the SBTi's database, it did indeed sign on to such a commitment on January 1st, 2023, but as of writing this report, 21 months into that commitment, the company still hasn't got any near-term targets registered with the SBTi.¹⁵³ Inalca's 'Energy & Emissions' website does not provide any targets or detailed plans for reducing their emissions either, but talks about a new biogas plant.¹⁵⁴ Biogas also features high on Cremonini's sustainability webpage, which again fails to lay out the company's target commitments.¹⁵⁵



DANISH CROWN



HEADQUARTES	DENMARK	
ANNUAL TURNOVER (2022/2023)	US\$ 6.8bn ¹⁵⁶	
CEO	JAIS VALEUR	
PRODUCTION (HEADS/YR, 2022-2023) ¹⁵⁷	CATTLE: 0.8 million	PIGS & SOWS: 15.9 million

The Group

Danish Crown claims to be amongst the largest pork producers in Europe and the largest pork exporters in the world.¹⁵⁸ The company markets itself as a climate-ambitious company,¹⁵⁹ but its actual action on climate change remains highly insufficient, and the company has recently been found guilty of greenwashing by Denmark's highest court (more details below).¹⁶⁰

The Group's climate action

Danish Crown has SBTi approved 2030 targets (against a 2019 baseline), including absolute emission reductions of 42% in Scope 1 & 2, emission intensity reductions of 20% in Scope 3, and a commitment to a Net Zero target by 2050.¹⁶¹ Danish Crown's climate target on emissions from Scope 3, accounting for 97% of the company's emissions¹⁶², is hence much less ambitious than its target for the remaining 3% in Scope 1 & 2. Furthermore, it is vague in that it lacks concrete measures to bring those emissions down.

On Scope 1 & 2 emissions, the only activities reported for 2022/2023 by Danish Crown are getting these targets approved and establishing new policies on 'carbon insetting' and genetically modified organisms (GMOs).¹⁶³ On Scope 3 emissions, the company's 2022/2023 activities are reported as getting more farmers enrolled in their 'Climate Track' programme and developing roadmaps for emission reductions at farm-level.¹⁶⁴ 'Climate Track' is primarily a data exchange programme between Danish Crown and its farmer suppliers, aiming to lower emissions through supporting best practices. It is a completely voluntary programme with no enforcement measures, and has shown limited success.¹⁶⁵

The company appears to have no strategy to shift away from its meat-centric production towards more plant-based alternatives. To the contrary, its stated goal is "*Maintaining a sustainable production level for Danish pigs at the current level of 10-13 million.*"¹⁶⁶ The report does not mention a target for increasing the production of plant-based alternatives.

In 2020, to achieve its pig production goals, Danish Crown launched a campaign promoting ‘Climate Controlled Pork’¹⁶⁷, claiming a 25% reduction in emissions intensity since 2005.¹⁶⁸ According to the Danish NGO Danwatch, this claim was supported by a life cycle assessment (LCA) by Aarhus University, commissioned by Danish Crown.¹⁶⁹ According to subsequent investigations by Danwatch¹⁷⁰:

1) The LCA did not adhere to ISO standards, omitting crucial factors like land use emissions, leading to underestimating Danish pork’s climate impact.

2) Experts concluded that the 25% reduction claim was statistically unreliable and that it was within reasonable uncertainty that there had been no reductions at all.

3) Danish Crown heavily influenced the report, dictating content and downplaying the role of soy feed emissions.

In April 2024, the highest court in Denmark ruled that the statement ‘climate-controlled’ was misleading, violating Denmark’s marketing act.¹⁷¹



CHAROEN POKPHAND (CP)



HEADQUARTES	THAILAND	
ANNUAL TURNOVER (2023)	US\$ 1.68bn ¹⁷²	
CEO	PRASIT BOONDOUNGPASERT	
PRODUCTION (HEADS/YR)	CHICKEN: ¹⁷³ 685 Mio.	PIGS (partial coverage): ¹⁷⁴ 5 Mio.

The Group

Charoen Pokphand (CP) ranks amongst the largest animal feed¹⁷⁵ and pig producers in the world¹⁷⁶, focussing in its pig business on the production of sows and piglets as opposed to meat. It is also a major global producer of chicken.¹⁷⁷ CP’s emissions have not been calculated for this report, as the production data available for the company in the public domain are too incomplete. Contacted by

Greenpeace Southeast Asia in August 2024, the company refused to provide complete production data for their global operation.

The Group’s climate action

In 2021, CP published a report titled, ‘Towards Net Zero’¹⁷⁸ which lists 6 areas of climate action: renewable energy (incl. bioenergy), energy efficiency, waste management, afforestation, agriculture,

and transportation, without providing much detail on what action will be taken and what their milestones will be. Most notably, while the report lists “*reducing emissions from livestock*”, it fails to provide information on how this is to be achieved. The company’s methane emissions are not addressed, except implicitly through their plans to increase the use of manure for the production of biomethane. CP’s goal to achieve Net Zero Emissions by 2030 (in Scope 1 & 2) seems ambitious but entails only a 50% reduction in the company’s actual emissions, the rest is to be compensated for by carbon removals elsewhere, apparently mainly by supporting communities in tree planting, i.e. offsetting.


A look at the company’s 2023 Sustainability Report¹⁷⁹ does not paint a better picture. Where CP reports on its self-set sustainability targets, the climate section is virtually void of any progress on emission reductions. There is no reference to the target of reducing absolute Scope 1 & 2 emissions by 50% by 2030. The claimed reduction in product emission intensity of 24.1% is limited to Thailand and is not backed up with any data. Instead, the company highlights selling products with green labels that promise carbon reduction or even carbon neutrality. The climate section then goes on to talk about initiatives to reduce waste, with no apparent link to climate change.¹⁸⁰ In essence, CP appears to take people’s trust for granted, as barely any of the stated climate achievements can be verified, without additional information being provided by the company.

Missing Accountability under the Haze


In Southeast Asia, animal feed production has been associated with local and transboundary haze pollution. According to an analysis by Greenpeace Thailand, in the lower Mekong region, 41% of the regional transboundary haze results from fire hotspots linked to industrial plantations of maize for feed.¹⁸¹

Without transparency and traceability in meat, feed and dairy companies’ supply chains, it is challenging for consumers and regulators in the region to make the link between these products and the environmental and health impacts of transboundary haze on local and indigenous people. The Thai Government, under the ‘*The Ayeyawady - Chao Phraya - Mekong Economic Cooperation Strategy*’ (ACMECS) cooperation framework, created an economic strategy in 2004 that is reported to have benefitted Charoen Pokphand¹⁸² to invest in industrial maize for feed production under contract farming in the neighbouring countries, especially in Myanmar and Laos. A study by Greenpeace Thailand found that the expansion of maize monoculture for feed grains was responsible for over 1.9 million hectares of deforestation in the lower Mekong region from 2015-2023.¹⁸³ Greenpeace Thailand is calling for a full disclosure of business operations and traceability requirements at every step of CP’s supply chains across its businesses.

DAIRY COMPANIES



LACTALIS



HEADQUARTES	FRANCE
ANNUAL TURNOVER (2023)	US\$ 31.9bn ¹⁸⁴
CEO	EMMANUEL BESNIER
MILK INTAKE (2022)	22.6Mt ¹⁸⁵

The group

By volume, Lactalis is listed as the 2nd largest dairy processor in the world.¹⁸⁶ The company has a strong focus on the production of cheese, marketed under well-known brands such as President, Galbani, Parmalat, and Kraft.¹⁸⁷ Lactalis claims to operate globally in over 50 countries, marketing its products in 150 countries.¹⁸⁸

The Group’s climate action

In September 2024, Lactalis received approval of their emission reduction targets from the SBTi, with key elements including “to reach net-zero greenhouse gas emissions across the value chain by 2050”, “to reduce absolute Scope 1 and 2 GHG emissions 46.2% by 2030 from a 2019 base year” and “to reduce Scope 3 FLAG GHG emissions 30.3% by 2030 from a 2021 base year....[and] 72% by 2050”. While Lactalis’ targets clearly relate to

absolute emission reductions for Scope 1 and 2, no such clarification is given for the lion share of their emissions in Scope 3 (94%¹⁸⁹). Their Scope 3 targets also include a reference to unspecified ‘removals’, which could be understood as Lactalis including carbon removals from offsetting, e.g. tree planting, in their accounting to reach their targets.¹⁹⁰ The description of Lactalis’ targets on the SBTi dashboard does not include information on measures to reach those targets.


In their 2022 Sustainability Report, the company refers to some Scope 3 emission reduction measures, but fails to present any concrete ones. The report only mentions assessing emissions at farm level, technical support to farmers and incentivising farms to produce milk with a lower carbon footprint. It also elaborates on experimental projects with technological fixes such as feed additives - the company referring to Bovaer and linseed oil - as well as increasing carbon storage in soils. In its more recent 2023 Sustainability

Report, Lactalis states to have “worked to refine its climate roadmap for Scope 3, which is currently being validated by the SBTi.”¹⁹¹


Lactalis appears to be banking on reducing Scope 3 emission intensities instead of actual emissions. This comes as no surprise as Lactalis increased its milk intake by a staggering 50% between 2016 and 2022, based on data provided by industry analysts’ IFCN.¹⁹² This is the strongest growth in milk

intake amongst the top 20 milk processors worldwide, as reported by IFCN in the same data set. In September 2024, Lactalis announced to procure 9% less milk in France, sending shockwaves through the country’s farmers community - but not out of concerns for our climate, but because of the “volatility and unpredictability” of rgw global market for milk. The company apparently did not present any transition plan for impacted farmers.¹⁹³





FONTERRA



HEADQUARTES	AUCKLAND, NEW ZEALAND
ANNUAL TURNOVER (2023)	US\$ 15.1billion ¹⁹⁴
CEO	MILES HURRELL
MILK INTAKE (2022)	17.6Mt ¹⁹⁵

The group

Fonterra is reported to be New Zealand’s largest producer of greenhouse gas emissions.¹⁹⁶ It is listed as the 3rd largest processor of milk in the world¹⁹⁷ and also one of the world’s largest dairy exporters.¹⁹⁸ It operates as a cooperative with approximately 9,200 farmer shareholders.¹⁹⁹

95% of Fonterra milk is exported overseas²⁰⁰, primarily in the form of ingredients like milk powder and casein.²⁰¹ While Fonterra claims that ‘milk helps feed the world’,²⁰² a significant portion of these ingredients ultimately end up in confectionery, baked goods and ice cream.²⁰³

The Group’s climate action

In November 2023, Fonterra committed itself to Net-Zero by 2050.²⁰⁴ Its 2030 targets are aligned with the SBTi’s requirement for 1.5°C aligned targets, and SBTi’s FLAG guidance.²⁰⁵ These 2030 targets include a 50% absolute reduction in Scope 1 & 2 emissions, and a 30% intensity reduction in its Scope 1 &

3 land-based emissions, using 2018 as a baseline.²⁰⁶

According to the company, Scope 3 emissions make up 93% of its emissions, methane accounting for 52% of those.²⁰⁷ Yet, their Climate Roadmap contains very little on reducing methane emissions. Fonterra’s use of intensity-based targets for Scope 3 emissions would allow the company to increase its greenhouse gas emissions if production were to increase. In this scenario, the company would still be able to claim that it had met the Scope 3 targets outlined in its Climate Roadmap. In their response to Greenpeace Nordic prior to the release of this report, Fonterra pointed to having achieved an “absolute reduction of ~1.9MT of CO₂e ... delivered from our baseline year of 2018”. According to their ‘Climate-related Disclosure 2023’ this appears to refer to their Scope 3 emissions between 2018 and 2023²⁰⁸ and would be equivalent to a 7.3% decline. According to the same report, Fonterra’s Scope 3 emissions originate to 98% from ‘purchased goods and services’, i.e. mainly from the milk they purchase. The report also states a decline in emissions intensity of

4.2% for Scope 1-3 and 2.1% for Scope 1 & 3 FLAG* only. It appears that much of the company's claimed reductions in absolute Scope 3 emissions could be due to reduced milk intake, rather than from reductions in emission intensity. In fact, for the period 2019 to 2022, Fonterra reported a decline from 18.6 million tonnes to 17.6 million tonnes milk solids collected.²⁰⁹ According to IFCN data for Fonterra from 2018 to 2022, the company's milk intake went down by 25.8%.²¹⁰

The 30% Scope 1 & 3 on-farm reductions, are laid out in 3 categories, 'Innovating New technologies', 'Best Practice Farming', and 'Working with Nature'. Fonterra's Climate Roadmap, relies heavily on 'new technologies'.²¹¹ 7% of the company's Scope 3 emissions reductions are planned to be met by techno-fixes.²¹² These include feed additives, methane vaccines, and non-biological technological solutions (like muzzles for cows that capture methane after it has been emitted). A further 7% reduction is expected to come from what Fonterra calls 'best practice farming'.²¹³ This includes more efficient use of fertilisers, better nutrition for cows, minimising on-farm energy use, and selective breeding. The supplier of 'genetics' to Fonterra's farmers has a breeding programme to develop 'low emissions' cows.²¹⁴ These practices are far from what can be considered 'best practice', as long as Fonterra continues to maintain its current stocking rates of dairy cows.

A further 8% intensity reduction is expected to come from carbon removals, in the form of tree planting.²¹⁵ The final 8% is attributed to 'land-use change.' Some of Fonterra's emissions, the company reports, relate to the historic conversion of land to dairy farming, mostly through deforestation. The company banks on these emissions being considered

fully accounted for by 2030: *"at the end of their 20 year responsibility window...in line with the draft GHG Protocol Land Sector and Removals Guidance"*.²¹⁶ In other words, for this final 8% percent reduction to materialise, Fonterra just has to wait until its 'responsibility window' expires. Both tree planting and land-use accounting are considered 'working with nature.'

This reliance on technological solutions avoids using known and available solutions that will have an immediate impact on methane emissions, such as a reduction in herd size. Furthermore, none of the roadmap's 'best practice farming' methods appear to be enforceable. For a company claiming that *"we need to act now to contribute to a future where global temperature increase is limited to 1.5°C"*,²¹⁷ its roadmap is gambling on future solutions to solve today's problems.

Fonterra's Climate Roadmap also includes a Zero Deforestation Commitment by 2025.²¹⁸ However, the company is still using palm kernel expeller (PKE),²¹⁹ a cheap animal feed from the palm oil industry, associated with deforestation, human rights abuses and the destruction of rare wildlife habitats. Fonterra's own 'grass-fed' standard, allows for up to 20% of a dairy cow's diet to be PKE.²²⁰ The use of this product is likely to breach this Zero Deforestation standard, if continued into 2025. PKE is difficult to trace, because many different plantations provide kernels to the processing mills. In fact, Fonterra's main supplier of PKE, Agrifeeds, claims to only be able to trace 12% of its PKE to plantations,²²¹ which leaves the supply chain vulnerable to deforestation.

The Climate Roadmap also dedicates two pages to Fonterra's 'regenerative mindset'.²²² Fonterra claims that *'Many regenerative agricultural practices are inherent to the way*


* FLAG - Forest, Land and Agriculture

we farm, with our pasture-based system and focus on improving the health and wellbeing of our animals, waterways and soil.’²²³ These claims are inconsistent with the reality of ongoing animal welfare concerns,²²⁴ and degradation of water across Aotearoa, due to intensive dairying.²²⁵ Fonterra’s major customer, Nestlé, has committed to “20% of their key ingredients...sourced through regenerative agriculture methods by 2025, and up to 50% in 2030”.²²⁶ However, there is no internationally agreed definition of regenerative farming. To date, Fonterra has largely sought to rebrand existing practices as


regenerative, reportedly drawing criticism from experts.²²⁷

Fonterra’s Climate Roadmap relies heavily on techno-fixes, land-use accounting, and intensity-based targets that do not necessarily result in emission reductions. On paper, Fonterra’s Climate Roadmap looks impressive, but a closer look appears to reveal the lack of meaningful reductions of methane, and a document carefully crafted to maintain business as usual.





NESTLÉ



HEADQUARTES	SWITZERLAND
ANNUAL TURNOVER (2023)	US\$ 83.6bn ²²⁸
CEO	ULF MARK SCHNEIDER
MILK INTAKE (2022)	13.5Mt ²²⁹

The Group

Nestlé has been reported to be the world's largest food company,²³⁰ and is listed as the 5th largest processor of milk globally.²³¹

It processes milk into baby formulas, coffee whitener, chocolate, ice cream, and more. It sources from farmers directly, but also from many of the other large dairy companies, including Lactalis, the Dairy Farmers of America, Arla and Fonterra.²³²

The Group's climate action

Nestlé committed to reducing emissions from Scope 1, 2 & 3 by 50% by 2030, compared to a 2018 baseline, and to become Net Zero by 2050. Their commitment covers only those 81% of their total emissions, which the company regards as within the Scope of its 'UN 1.5°C pledge'.²³³

The New Climate Institute (NCI), analysing the climate strategies of 51 major global companies in 2024,²³⁴ rated Nestlé's Net Zero Roadmap as 'poor,' due to a lack of transparency and integrity. According to this report, Nestlé's climate pledge to reduce 50% of their emissions by 2030, is backed up by only 16-24% actual emission reductions. Offsets are still a major element in closing the gap, though Nestlé no longer calls them that, partially rebranding them as 'Scope 3 removals'.²³⁵


While the company points to "agroforestry, silvopasture and the restoration of forests and peatland" as major components of 'Scope 3 removals',²³⁶ their main activities seem to focus on eliminating deforestation from their 'primary supply chain'²³⁷ and promoting 'regenerative agriculture'.²³⁸

Excluding deforestation from a company's direct suppliers is an absolute necessity, but to have an impact it must also apply to deforestation related to Nestlé's indirect suppliers. And even then, it does not address emissions from 'leakage' - where deforestation excluded from Nestlé's supply chain continues elsewhere, and does not decrease overall. Additionally, simply cleaning deforestation from supply chains does not mean the forests are protected and emissions prevented. As a part of commodity production landscapes, forests and nature need to be protected and restored.


The idea of compensating for livestock emissions through increased carbon storage in soils under 'regenerative agriculture' has been widely shown to be a distraction from real emissions reductions (see Section 2.3 on Greenwashing for more details).²³⁹

The measure to shift its product portfolio from dairy to plant-based products, appears unthinkable for the company. As their Global Head of Public Affairs stated in Nestlé's 2022 Sustainability Report: "*Some stakeholders would have us diversify from dairy altogether. That is not our way.*" In line with this thinking, Nestlé developed a range of lactose-free milk products to establish new markets for dairy in Asia.²⁴⁰

Trust in Nestlé's climate plans is eroded by contradicting statements in its 'Road Map to Net Zero' such as "*we're promising to be net zero based on our 2018 baseline, no matter how much our company grows*".²⁴¹ As the finance think tank *Planet Tracker* summarised - "*Nestlé seems to lack an exhaustive plan. Instead, it presents a series of initiatives which cannot demonstrate whether net-zero will be reached*" and "*its support of industry associations with a mixed position on climate risks is undermining the impact of its own climate intentions*".²⁴²



ARLA



HEADQUARTES	DENMARK
ANNUAL TURNOVER (2023)	US\$ 12.7bn ²⁴³
CEO	PEDER TUBORGH
MILK INTAKE (2022) ²⁴⁴	13.5Mt

The Group

Arla is organised as a dairy cooperative, owned by the farmers supplying the milk. It is listed as the 4th largest dairy processor globally,²⁴⁵ operating mainly in Europe, with activities around the globe.

The Group’s climate action

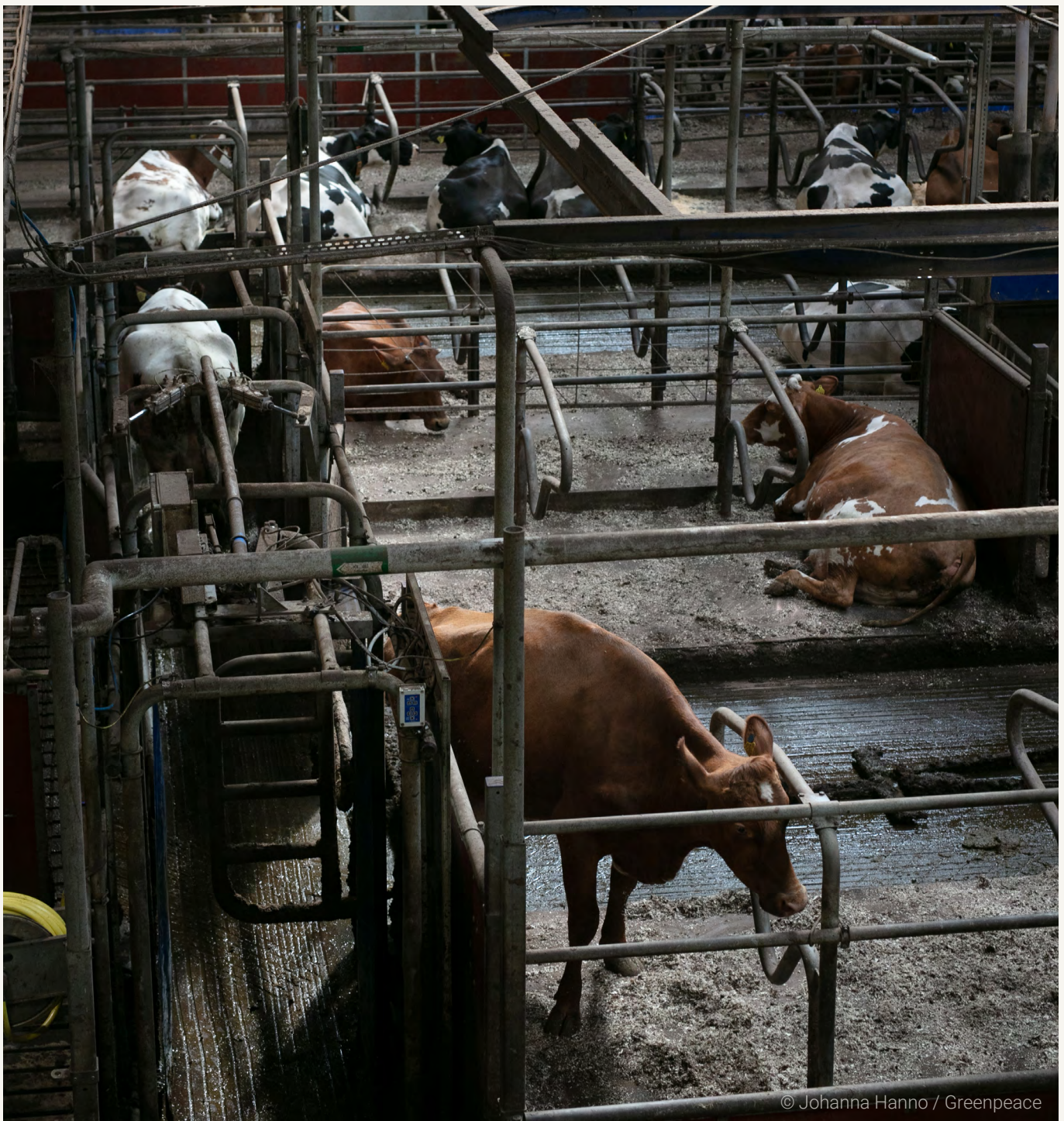
Arla is committed to a target of Net Zero by 2050, and to reducing absolute Scope 1 and 2 emissions by 63% by 2030, against a 2015 baseline.²⁴⁶ For its much larger supply chain emissions - 96% of its total - Arla limits its commitment to reducing “*relative Scope 3 GHG emissions by 30% per tonne of standardised raw milk and whey intake by 2030.*”²⁴⁷ In other words, the company plans to reduce its emission intensity, but not necessarily absolute emissions from its supply chain. Arla points to optimising milk yields, sustainable feed, renewable energy, green fertiliser, biogas, carbon farming and breeding for achieving their reduction targets. Shifting from dairy to plant-based alternatives does not feature in their plans.

In 2023, Arla introduced a new ‘*Sustainability Incentive Model*’, claiming it would reward farmers that reduce their climate footprint through higher milk prices.²⁴⁸ However, in June 2023, Arla’s Swedish cooperative farmer representatives met²⁴⁹ and voted on a motion²⁵⁰ to strongly criticise this so-called ‘*Climate Check*’ point system.²⁵¹ The motion asserts that the system pushed farmers into intensification, at the disadvantage of feeding animals perennial grasses in a form of managed grazing that provides better nutrition to cows and sequesters carbon as opposed to expanding the demand for more compound feed from industrial monocultures that contribute to a myriad of environmental problems. Seasonal grazing is also regarded as an important component of biodiversity protection in Sweden. As the farmers pointed out, heavier reliance on industrial compound feed also leads to higher use of artificial fertiliser and pesticides. Fourteen out of the 17 Arla districts reportedly approved this motion, with the remaining three approving the motion on the condition that some wordings change in the statement to the board.²⁵² This motion by almost all Swedish Arla farmers had

reportedly been ignored by the board, raising concerns about democracy in the cooperative which appears to be in name only.²⁵³

To provide evidence for the benefits of industrialisation of Swedish farms, the Swedish farmers union (LRF) and Växa, stating to be Sweden's largest cattle farmers association²⁵⁴ started a study in 2023 that

locked dairy cows in stables for 18 months²⁵⁵, to show that this practice has no negative impacts on animal welfare. According to the animal welfare organisation Djurskyddet, Arla refused to guarantee to exclude milk from this experiment in their products (agreeing only to exclude it from their fluid milk sold in supermarkets as opposed to other dairy products).²⁵⁶





UNTERNEHMENSGRUPPE THEO MÜLLER



HEADQUARTES

LUXEMBOURG / GERMANY

ANNUAL TURNOVER (2023)

US\$ 9.96bn²⁵⁷

CEO

STEFAN MÜLLER

MILK INTAKE (2022)

6.7Mt²⁵⁸



The Group

The 100% family-owned Unternehmensgruppe Theo Müller (UTM) has become the leading German dairy group (reported to rank 14th globally in 2022²⁵⁹) thanks to a series of acquisitions in recent years,* with milk and dairy products reportedly accounting for more than two-thirds of its turnover.** The Group is represented by the Müller brand and other regional brands in its home market of Germany, and is also active internationally with national brands in the Netherlands, the Czech Republic, the UK²⁶⁰ and Italy.²⁶¹ Neither the amount of milk processed nor the related greenhouse gas emissions are made public by UTM. The emissions calculated by the authors for this report are likely a gross underestimate, as they are based on 2022 milk intake figures from IFCN²⁶², i.e. before Müller expanded massively.

The group's climate plan

UTM communicates its sustainability activities through their so-called '*Efficiency Report*'. With regards to the group's climate impact, their 2023 Efficiency Report²⁶³ provides virtually no information. UTM does not list its emissions, nor does it provide any commitment to group-level reduction targets. It points to having signed up to the Net Zero targets of the Science Based Targets Initiative

(SBTi) in the first quarter of 2023. Signatories have two years to specify targets, but the SBTi database still fails to list any for UTM as of September 2024.²⁶⁴ It remains wholly unclear to what extent, and how UTM plans to reduce emissions across its entire supply chain. This makes UTM as intransparent as other leading dairy companies in Germany. In 2023, Germany's ten largest dairy companies all refused to disclose their greenhouse gas emissions in a survey conducted by Greenpeace Germany.²⁶⁵ In an analysis of the German dairy industry's greenhouse gas emissions commissioned by Greenpeace Germany based on an input-output analysis, UTM and its competitor Deutsches Milchkontor (DMK) combined accounted for around 40% of the total emissions of the dairy industry in Germany (28MtCO₂eq),*** putting the dairy industry in Germany only just behind the national steel industry with 33Mt, and well ahead of the chemical industry with 14 Mt.

*** Note: emission figures calculated for UTM in this report (see table in Annex) are based on a different methodology than those from the earlier publication by Greenpeace Germany (GPD (2024)) and are hence not comparable. A large share of the difference is due to this report using emission factors from GLEAM 3. Those from GLEAM 2 produce emissions figures closer to those from the study commissioned by Greenpeace Germany and released in 2024 (GPD (2024)).

* UTM acquired e.g. Landliebe (Germany) in 2024 and Yew Dairy (Ireland) in 2023. See [news section](#) of UTM.

** UTM does not provide precise information on this. The Dutch Rabobank publishes annual reports on the top 20 dairy companies in the world. Müller is in 14th place in the current edition from August 2023, with a dairy product turnover of 6.2 billion euros in 2022. With total sales of [EUR 8.8 billion](#) in 2022, this would be a share of 71%. Rabobank (2023). [Global Dairy Top 20: Record Revenues Provoke a Reshuffle](#), Rabobank, Aug 2023