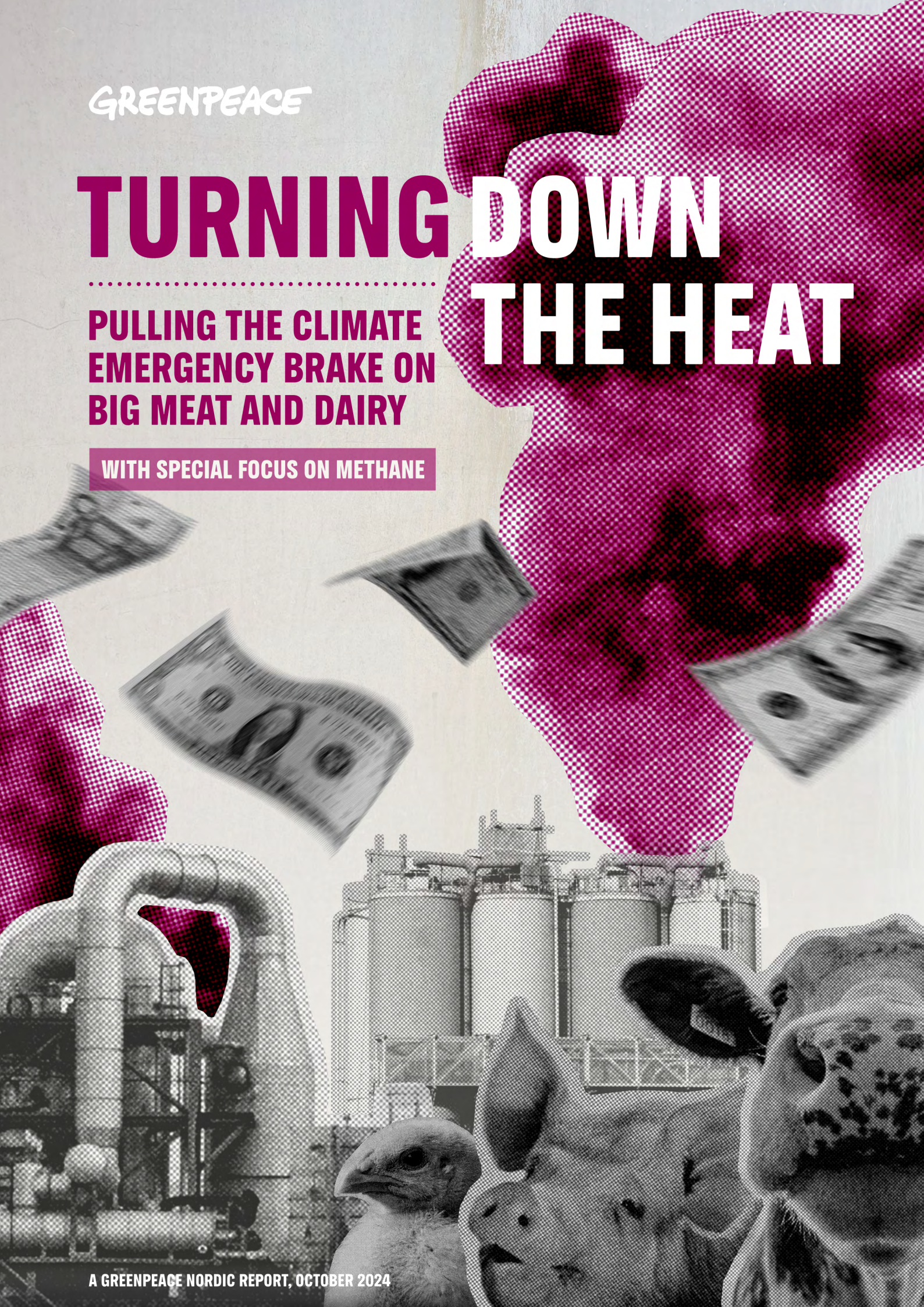


GREENPEACE

# TURNING DOWN THE HEAT

PULLING THE CLIMATE  
EMERGENCY BRAKE ON  
BIG MEAT AND DAIRY

WITH SPECIAL FOCUS ON METHANE



# EXECUTIVE SUMMARY

The meat and dairy industry is sitting on a big dirty secret: its massive methane emissions. Between 1910 and 2015, there was an enormous increase in both the production and consumption of meat and dairy. Livestock is the single biggest source of human-made methane. Reducing methane associated with meat and dairy is therefore a critical lever that will influence how quickly or slowly the world heats up in the near-term. Cutting large amounts of methane through a prompt transformation of our meat and dairy sector could be key, together with a fossil fuel phaseout, for an iconic victory against catastrophic climate change.

The increase of livestock production represented one of the most important drivers of emissions increase in the global food system in the last decades. This report shows different pathways we could take between 2025 and 2050 as humanity to either speed up or slow down global heating through the meat and dairy sector, with profound consequences for the survival of millions of human lives and the resilience of all life on Earth.

Modelling the UN FAO's business as usual scenario for the future of food, our findings show that we would add an additional warming of 0.32°C by 2050 (compared to 2015 levels) from the meat and dairy sector alone (see Section 1 & Figure 2). Methane would be responsible for more than three quarters of this warming (Figure 3). Neglecting prompt action in this sector would mean increasing average global temperatures by an additional 0.16°C as soon as 2030 from meat and dairy expansion alone.

They may seem like small numbers, but when we're talking about climate change, each fraction of a degree of global warming will impact millions of lives and livelihoods.

Scientists predict that each 0.3°C warming we prevent by the end of the century could reduce exposure to extreme heat for 410 million people. Each 0.1°C of warming we prevent could mean that around 2% less ice mass on global glaciers will melt, significantly improving water availability, reducing sea level rise and flood risks for millions of people in coastal areas.

## THERE IS HOPE!

**In this report we show how changes in overproduction and overconsumption of meat and dairy could avert such a scenario.**

We include a 'Hopeful Projection' in which high- and middle-income countries reduce production and consumption of meat and dairy in line with the EAT–Lancet Planetary Health diet. This would lead to **0.12°C less warming by 2050** compared to business as usual, providing a 'cooling effect' on global temperature rise.\* In effect it amounts to a 37% reduction in livestock related warming by 2050 compared to business-as-usual and could help slow planetary heating.\*\* Prompt action by governments from high- and middle-income countries to shift away from industrial meat and dairy production in line with the EAT–Lancet Planetary Health diet gives us a real chance to slow down warming.

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\* 'Cooling effect' refers to the effect of reducing the rise of temperatures when compared to the resulting warming under a baseline livestock projection (due mostly to the short-lived nature of methane). It does not imply that global temperatures will actually fall.

\*\* Projection 1 in Section 1 presents warming effects of livestock under (BAU) with population growth and projected increase in production/consumption of livestock set by FAO (2018a). Projection 2 is the "hope projection" presenting warming effects of livestock under conditions of same population growth but reduced livestock production and consumption in high- and middle-income countries in line with the EAT–Lancet diet guidance for planetary health.

Our results in Chapter 1 confirm that a more equitable and ecological approach to meat and dairy production and dietary changes through the “*shrink and share*” approach outlined in Greenpeace International’s 2018 “*Less is More*” publication, constitutes effective climate change mitigation. It would mean high-consuming societies, mostly in high- and middle-income countries, would reduce their meat and dairy production and consumption, whereas low-consuming societies and low-income regions could increase their meat and dairy production and consumption levels<sup>1</sup>.

But big meat and dairy corporations are standing in the way of these hopeful changes. And there is no apparent evidence that they are willing to allow a transformation of the current trends. Chapter 2 of this report shows that the estimated methane emissions of 29 major meat and dairy companies calculated for this report, rival those of the 100 biggest corporations in the fossil fuel sector (Table 1). **These companies’ methane emissions rival Big Oil’s.** Yet it is largely unknown by the public and overlooked by governments. This is despite the massive role that meat and dairy companies are bound to play in driving the projected increase in global heating.

According to our estimates, these meat and dairy companies emit 20 million tonnes of methane per year, accounting for a fifth of total global methane emissions from livestock, as reported by the UN<sup>2</sup>.

- JBS, the largest meat producer in the world, is already known for its terrible record on deforestation. According to our estimates, it is also responsible for more methane emissions than are attributed to ExxonMobil and Shell combined. In fact, the company would rank 5th in comparison to the biggest

methane emitting corporations in the fossil fuel sector (Table 1).

- The five largest meat and dairy methane emitters according to our estimates (JBS, Marfrig, Minerva, Cargill and Dairy Farmers of America) exceed the combined reported methane emissions of big fossil fuel giants such as ExxonMobil, Shell, TotalEnergies, Chevron and BP (Figure 6).

- The estimated methane emissions of the top 3 dairy processors - Dairy Farmers of America, France’s Lactalis and New Zealand’s Fonterra - combined, would surpass some of the largest fossil fuel companies such as ExxonMobil (Figure 7).

The lack of transparency endemic in the industry means that many meat and dairy corporations do not publish livestock production or milk processing figures or report on their CO<sub>2</sub> and methane emissions, let alone independently verify them.\* The 29 companies whose emissions we estimated are therefore only an indicative list of the meat and dairy rivals of Big Oil. There are likely several more.

In Chapter 2.2 of this report, we show that instead of a transition away from livestock overproduction and consumption, meat and dairy companies and their lobbies have doubled down on blocking efforts to make an ecological and healthy shift to diets based more on diverse plant-based foods and protein. Chapter 2.3 addresses Big Meat and Dairy’s numerous tricks and tactics to greenwash their climate mitigation efforts.

A special inset in the report explores

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\* This lack of transparency endemic to the industry prevents a more comprehensive assessment of Big Meat and Dairy’s real impact on near term heating, which may in effect be much larger.



in more detail the insufficient climate action plans of 10 corporations. Together, these ten corporate profiles demonstrate a flawed approach to accountability for climate mitigation. This is systemic across geographies. The climate plans lack consistent and harmonised benchmarks and targets across companies and their self-reported data lacks independent verification. This makes it impossible to compare companies and their progress towards real climate action.

A majority of governments have signed the Global Methane Pledge (GMP) to cut this powerful greenhouse gas so critical in preventing the worst impacts of climate change. By COP30 in Brazil, governments are meant to increase their ambition of their 2035 climate targets. Yet in agriculture, governments are thus far only tinkering around the edges of a problematic model of

meat and dairy production, while the planet burns.

Our findings in this report bolster the demands of climate justice and food and agriculture activists: a fossil fuel phase out, combined with a transition away from excessive production and consumption of industrial meat and dairy gives us a fighting chance to limit global warming to 1.5°C. Doing so would save millions of lives from the ravages of rising global temperatures.

So much can be done at all levels of government in each country and globally to facilitate a just transition to agroecology – a system that respects the right to food and food sovereignty - and helps provide more diverse plant-based foods and less animal-based protein for a planetary health diet. **It is time to slow down warming by turning up the heat on Big Meat and Dairy.**

# RECOMMENDATIONS

## Greenpeace calls on policymakers to:

1

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Set binding regulations on meat and dairy companies to report their full Scope of emissions (separately reporting methane, nitrous oxide and carbon dioxide) with companies responsible for their total supply chain emissions. The reporting must be globally harmonised across all companies with an independent system of verification.

2

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Update or introduce binding legislation for reducing agricultural emissions (including methane) with concrete targets that reduce livestock numbers, ruling out offsets and unproven short-term technological solutions. Governments must do the following as first steps:

- Stop the expansion of industrial livestock production (no new factory farms or expansion of existing factory farms).
- Stop the expansion of industrial animal feed production and prioritise diverse food for people over animal feed.

3

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Create a time-bound strategy and implementation plan to shift public funds away from large-scale animal agriculture (including feed) to incentivizing and expanding a food system based on agroecology that adequately supports farmers and workers in that transition.

4

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Introduce policies that eliminate overconsumption of animal products and shift dietary patterns towards healthy ecological plant-based foods.

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