STILL BUTCHERING THE PLANET

The big-name financiers bankrolling livestock corporations and climate change – 2024 update

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Front cover image: Bullish markets. Credit: Pisit.Sj, Shutterstock

EXECUTIVE SUMMARY

KEY FINDINGS:

- Since the Paris agreement was signed in 2015, over half a trillion dollars in credit have been provided to the world's largest 55 industrial livestock companies – an average of $76.9 billion per year – fuelling the expansion of global meat and dairy production.
- As of March 2023, a total of $323.3 billion in shareholdings and bondholdings were held by private financial institutions in the world's largest 55 big livestock companies.
- Expansion of meat and dairy production is completely at odds with the imperative to restrict global temperature rise in order to avert catastrophic climate change.
- Despite this, our analysis shows that finance for big livestock companies is on the rise. In the four years between 2019-22, there was an overall 15% increase in finance to the 55 big livestock companies compared to 2015-18.
- Just five of the 55 companies – JBS, Marfrig, Cargill, Tyson Foods, and Minerva – combined cause an estimated 595 million tonnes CO_2-equivalent in greenhouse gas emissions per year[1], more than the total emissions of the UK and Ireland[2].
- At company level, Barclays is the largest global creditor to JBS, Morgan Stanley is the largest global creditor to Tyson Foods, and BNP Paribas is the largest global creditor to Cargill.
- The biggest creditors to the top 55 big livestock companies were: Bank of America ($28.8 billion), Barclays ($28.2 billion) and JPMorgan Chase ($26.7 billion).
- The biggest investors in the top 55 big livestock companies were BlackRock ($37.8 billion), Vanguard ($24.4 billion) and Capital Group ($21.4 billion).
- To mask their impacts, livestock companies are increasingly resorting to creative accounting, pulling the wool over investors' and regulators' eyes.

SUMMARY OF FINDINGS:

This report maps the global financial flows to the world's largest 55 industrial livestock companies – spanning the beef, dairy, pork, poultry, and animal feed sectors – as an update to Feedback's 2020 report, *Butchering the Planet*. These 55 companies, which represent approximately a fifth of global livestock slaughter, are some of the food system's largest drivers of climate change, deforestation, human rights and labour violations, pandemic risks, and animal welfare abuses. Our findings, based on data from financial databases, are alarming.

Globally since the Paris agreement was signed, over half a trillion dollars in credit were provided to the world's largest 55 big livestock companies – $615.0 billion between 2015-22. This included many types of finance, with major financial institutions lending $89.0 billion in corporate loans, underwriting $247.7 billion in bond issuances and $23.9 billion in share issuances, and providing approximately $254.4 billion in revolving credit facilities. As of March 2023, a total of $287.8 billion in shareholdings and $35.5 billion in bondholdings were invested in the world's largest 55 big livestock companies.

Credit is designed to help companies expand – and has helped drive a huge and unsustainable increase in global meat and dairy production. Between 2015-21, total global meat production increased by 9% from 325.31 to 354.82 million tonnes – an increase of 29.51 million tonnes[3] – and global milk production increased by 13% from 814.51 million tonnes to 918.16 million tonnes – an increase of 103.65 million tonnes[4]. This follows a long-term trend – roughly five times more meat was produced globally in 2021 compared to 1961[5], and nearly three times more milk[6] – and the United Nations Food and Agriculture Organisation (FAO) projects that demand for animal-based foods will increase by a further 20% by 2050 compared to 2020 on a Business-As-Usual trajectory[7].

This finance-fuelled growth in the livestock industry is driving a global crisis. An average $76.9 billion per year was poured into the world's 55 largest big livestock companies between 2015-22 – whilst the **global livestock sector as a whole causes an estimated $8.5 trillion annually in externalised health and climate costs**[8].

Despite the urgent need to reduce global livestock numbers, finance for big livestock companies is on the rise. In the four years between 2019-22, there was an

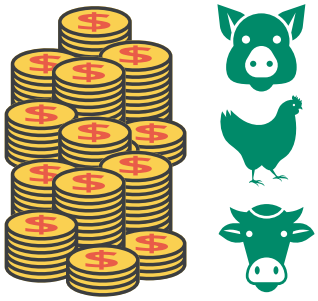
overall 15% increase in credit to the 55 big livestock companies compared to 2015-18 – with an 87% increase in underwriting bond issuances, an 11% increase in corporate loans, and a 225% increase in share issuances. Only revolving credit facilities declined, with a 33% decrease in 2019-22 compared to 2015-18.

The damaging effects of climate change will be disproportionately experienced by the Global South. Yet the climate assistance that the Global South is receiving from rich countries pales in comparison with the average $76.9 billion per year we have calculated is being poured into industrial livestock companies: Oxfam has estimated that climate-specific net assistance (CSNA) to the Global South was just $21–24.5 billion in 2020[9a].

This report sets out to name and shame the worst offenders. Overall, the biggest creditors to the top 55 big livestock companies were Bank of America ($28.8 billion), followed shortly by Barclays ($28.2 billion) and JPMorgan Chase ($26.7 billion). For specific types of credit, the biggest global underwriter of bond issuances to the 55 big livestock companies was HSBC ($11.6 billion), the biggest provider of corporate loans was Rabobank ($5.7 billion), the biggest provider of revolving credit facilities was Bank of America ($15.7 billion), and the biggest underwriter of share issuances was China Merchants Bank ($4.4 billion). The biggest investors in the top 55 big livestock companies were BlackRock ($37.8 billion), Vanguard ($24.4 billion) and Capital Group ($21.4 billion).

We also reveal the largest financiers of some of the largest and most destructive industrial livestock companies. For instance, Barclays is the largest global creditor to JBS, Morgan Stanley is the largest global creditor to Tyson Foods, and BNP Paribas is the largest global creditor to Cargill.

a Whilst Global North countries claim they are close to meeting the $100 billion per year target for climate finance to the Global South, Oxfam find many accounting tricks through which these numbers are inflated, such as counting loans with no concessionary terms which cannot be considered "assistance" in any meaningful sense.

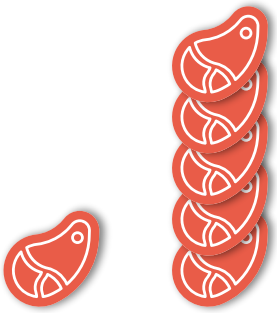


$0.6 trillion

in financing fuels growth in world's biggest 55 industrial livestock companies between 2015–22

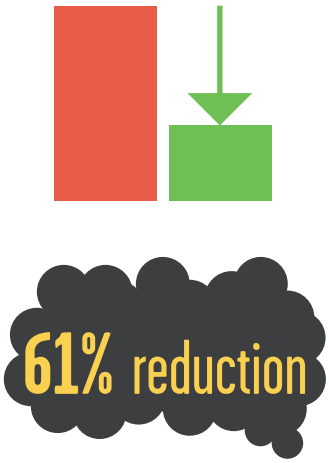
$8.5 trillion

in externalised health and climate costs caused by global livestock sector, per year



1961 **2021**

Five times more meat produced globally in 2021 compared to 1961 – and 9% more compared to 2015



in global livestock emissions required by 2036 to limit global warming in line with the Paris agreement

PER DAY, THE LARGEST MEAT AND DAIRY COMPANIES IN EACH SECTOR HAVE CAPACITY TO SLAUGHTER APPROXIMATELY:

44 million chickens

199,000 cattle

639,000 pigs

Feedback estimate that this is approximately **one fifth** of the cattle, pigs and chickens slaughtered globally per year

NOTE: These are very rough estimates due to limited data availability – highlighting the need for companies to publicly report their exact slaughter numbers in a standardised format. The slaughter capacity data and milk intake sources were derived from sources listed in Annex 1 – except for the pork sector where 2014 data was used as this was the most up-to-date available on slaughter numbers[10]. These figures were compared with global livestock slaughter numbers and global milk production for 2020 (except for pork where 2014 data was used to ensure comparability)[11].

BIG LIVESTOCK'S BIG CLIMATE IMPACT

Urgently restricting and reversing the growth of the livestock sector is not an optional bolt-on to our efforts to transition away from fossil fuels – it is essential for us to stay within safe levels of climate change. Prof Hans Pörtner, scientist and co-chair of the UN Intergovernmental Panel on Climate Change (IPCC), has said: "Without reducing and cutting down on meat consumption and the associated high-intensity agriculture systems, we will not be able to keep global warming to 1.5 degrees", in line with the Paris commitment[12].

Livestock contribute to climate change through enteric fermentation (burps and farts from ruminant livestock), land use change (like deforestation), feed production, manure, and processing and transport. The global livestock sector is already responsible for about 16.5% of the total anthropogenic (human-caused) emissions globally[13], and if current trends continue, it will be using up almost half the world's 1.5°C emissions budget by 2030[14] – that is, the amount of emissions we can safely emit to stay within 1.5°C of climate change. This is projected to rise even further to 81% by 2050[15].

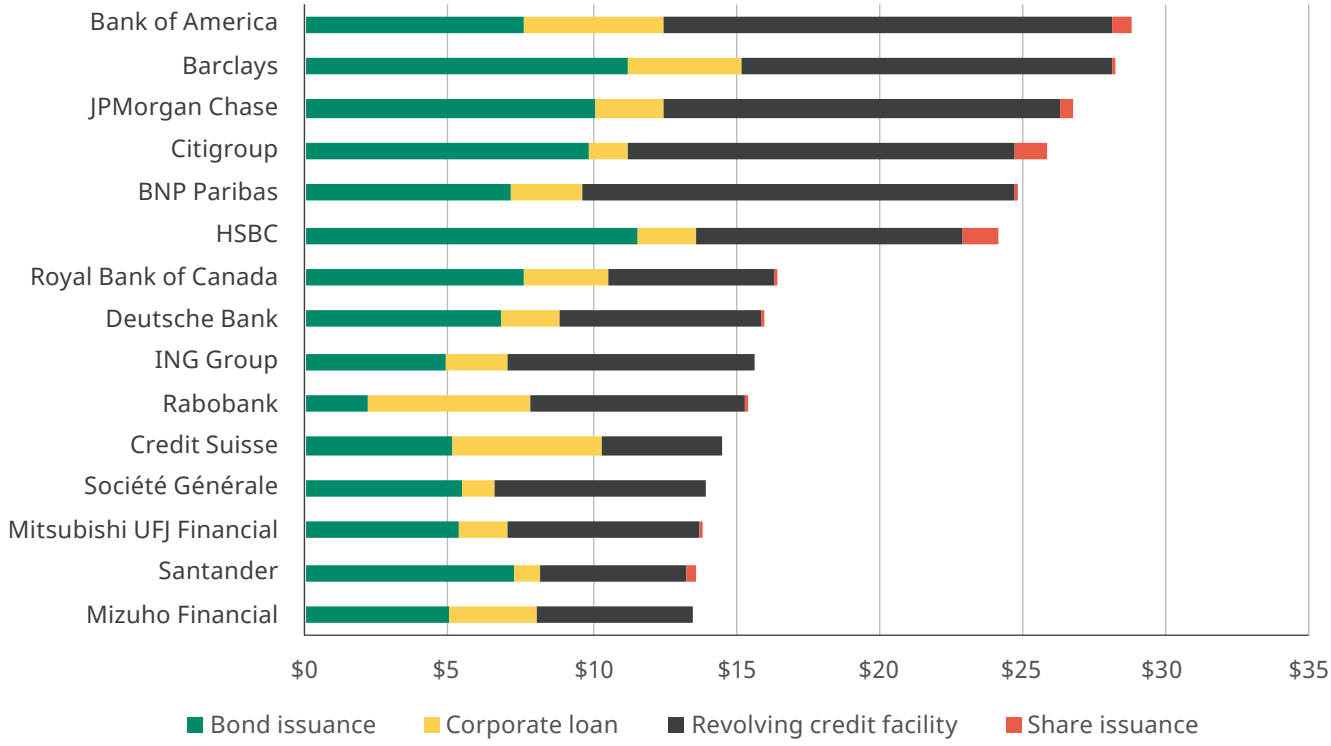
The need to control livestock-related emissions has become even more urgent, because the world recently breached the 1.5°C degrees warming limit for an entire year for the first time[16]. Global livestock emissions need to peak by 2025 and be reduced by 50% by 2030 and 61% by 2035, with faster and deeper reductions in higher-income countries, in order to limit global warming in line with the Paris agreement – this is the finding of a survey of over two hundred climate scientists and food and agriculture experts, over half of whom have authored IPCC reports[17]. 78% of the experts surveyed said that absolute global livestock numbers also need to peak by 2025 – with 85% agreeing that dietary shifts to less livestock-derived foods were required, particularly in high and middle-income countries[18]. The experts viewed reducing human consumption of livestock products and reducing the number of livestock animals as having the biggest potential to reducing livestock emissions[19].

Consistent with this, the IPCC found, with high confidence, that a shift to more plant-based diets could mitigate greenhouse gas (GHG) emissions by between 0.7 – 8 $GtCO_2eq$ per year, with higher reductions in meat and dairy leading to greater emission reductions[20]. For instance, the IPCC estimate that global adoption of a flexitarian diet (75% of meat and dairy replaced by cereals and pulses, with only one portion of red meat a week) would reduce global emissions by approximately 5 $GtCO_2eq$ per year[21]. This is equivalent to a 54% reduction in the 9.3 Gt CO_2eq of 2018 global agricultural emissions[22].

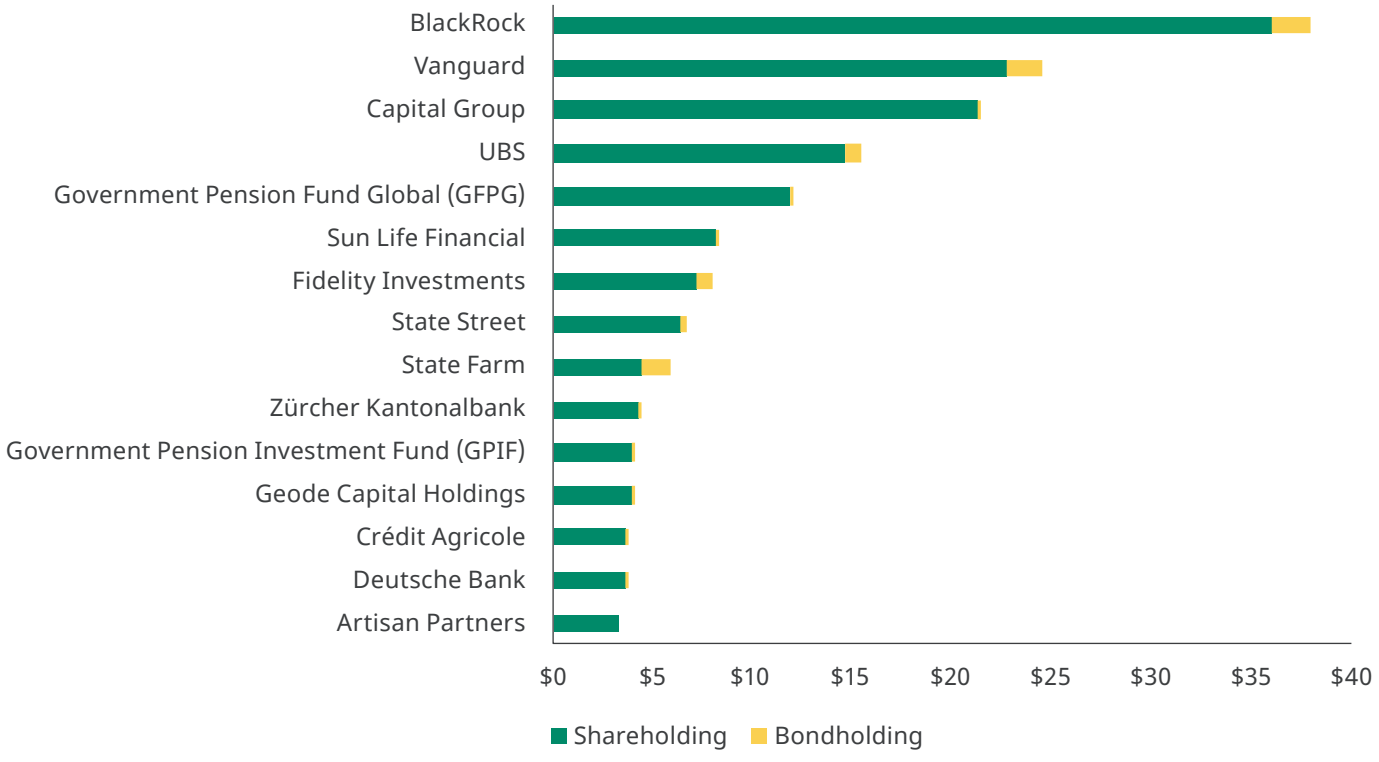
In addition to these direct emissions savings, reduction in livestock numbers would result in significant potential for carbon sequestration from nature restoration, and increased biodiversity. Meat, aquaculture, eggs, and dairy production already uses 83% of the world's farmland[23], mainly driven by the unsustainable overconsumption of meat in high-income countries and the growing demand for meat in upper-middle income countries. If every country in the world adopted the UK's high-meat diet, global land use by agriculture would have to nearly double[24], causing catastrophic habitat destruction. Conversely, reduction in meat consumption could result in significant nature restoration – a recent study found that the potential carbon sequestration through ecosystem restoration on land spared from alignment of global diets with the Eat-Lancet diet by 2050 could lead to sequestration of 210-459 $GtCO_2$ equivalent to the nine years of global fossil fuel emissions between 2012-20[25].

A group of cattle in confinement Sao Paulo, Brazil. Credit: Alf Ribeiro, Shutterstock

Total credit provided by global financial institutions to 55 largest industrial livestock and animal feed companies 2015-22 (billions US dollars)



Total investments by global financial institutions in 55 largest industrial livestock and animal feed companies as of filing date March 2023 (billions US dollars)



GLOSSARY OF TERMS

INDUSTRIAL LIVESTOCK / BIG LIVESTOCK

We define "industrial livestock" / "big livestock" companies (used interchangeably) as the world's largest mass-producers (and/or processors) of meat, dairy, eggs and animal feed at an unsustainable industrial scale. Typically controlled by multinational corporations, production involves rearing huge numbers of animals in concentrated feeding operations (mostly chickens, dairy cows, and pigs), feedlots (beef cows), or extensive, controlled grazing systems (beef and dairy cows) that are vertically integrated into international value chains. For further information on the 55 companies focused on in this report, see Annex 1.

ABBREVIATIONS

$: All finance figures in this report are presented in US dollars, unless otherwise specified.

CO_2eq: CO_2equivalent is a metric measure used to compare the emissions from various greenhouse gases on the basis of their global-warming potential (GWP), by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential.

GHG: Greenhouse gases

GWP100 and GWP20: GWP100 stands for Global Warming Potential 100 – it is a measure of the heating effect of greenhouse gases over a 100-year period. GWP is a measure of the heating effect of greenhouse gases over a 20-year period. Because methane is a powerful but shorter-lived greenhouse gas than CO_2, big livestock companies producing large amounts of methane have a higher global warming effect measured by the GWP20 metric compared to using the GWP100 metric. Unless specified, most emissions specified in this report use GWP100.

TYPES OF FINANCING

CREDIT

Corporate loans: Companies borrow money from a financial institution, with a maturity date by which they have to pay it back with interest. Long-term corporate loans are particularly useful in financing expansion plans.

Bond issuances: Issuing bonds involves cutting a large loan into small pieces and selling each piece separately. These are traded on the stock exchange. To issue bonds, a company needs the assistance of one or more (investment) banks which underwrite a certain amount of the bonds. Underwriting is in effect buying with the intention of selling to investors. If the investment bank fails to sell all the bonds it has underwritten, it will end up owning the remaining bonds.

Share issuances: Issuing shares on the stock exchange gives a company the opportunity to increase its equity by attracting new shareholders or increasing the equity from its existing shareholders. To arrange this, a company needs the assistance of one or more (investment) banks to underwrite the shares. The bank(s) purchase the shares initially, then promote the shares and find shareholders. If the investment bank fails to sell all the shares it has underwritten, it will end up owning the remaining shares.

Revolving credit facilities: Provides a company with an option to take up a loan from a bank (or, more often, a banking syndicate) when it has an urgent financing need. This is similar to a credit card in that companies can use the revolving facility up to a certain limit, but they don't have to. Revolving credits are often concluded for a five-year period and then renewed, but many companies renegotiate their revolving credit facility every year with the same banking syndicate. Amounts, interest rates, fees and participating banks can change slightly every year.

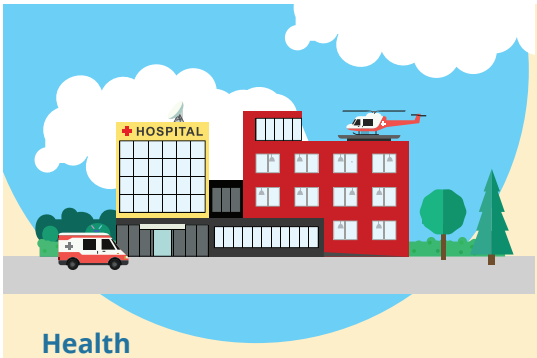
Totals in this report on revolving credit facilities should only be considered as estimates, because figures available on financial databases are the potential finance the financial institution has agreed to provisionally make available to the client – the actual values that have been drawn down via revolving credit facilities, and the values that have been drawn down and repaid over a given period of time, are often not publicly disclosed. The actual finance the client has made use of is not disclosed – this may have been higher or lower than the limit the financial institution agreed to provide.

INVESTMENT

Shareholdings: Shareholdings are ownership of shares in a company, which usually entitle the owner to voting rights in how the company is run and give potential for possible returns through price appreciation and dividends. As part-owners of the company, banks can have a direct influence on the company's strategy, though the magnitude of this influence depends on the size of the shareholding – for instance, JBS is a closely held company, which means the majority of the company's shares are owned by a few individuals rather than being publicly traded.[26] The consequence of this is that minority shareholders, even collectively, can have limited influence. Shareholdings are only relevant for stock listed companies. Not all companies are listed on a stock exchange. Shares can be bought and sold on the stock exchange from one moment to the next. Financial databases keep track of shareholdings through snapshots, or filings. This means that when a particular shareholding is recorded in the financial database, the actual holding, or a portion of it, might have been sold, or more shares purchased. Secondly, share prices vary from one moment to the next.

Bondholdings: Institutional investors can also buy bonds issued by private companies. The main difference between owning shares and bonds is that the owner of a bond is not a co-owner of the issuing company; the owner is a creditor of the company. The buyer of each bond is entitled to repayment after a certain number of years, and to a specified rate of interest during each of these years. Bonds can also be bought and sold from one moment to the next. Bondholdings are reported by the holding investor through regular filings.

ENVIRONMENTAL AND SOCIAL IMPACTS OF LIVESTOCK INDUSTRY



Health

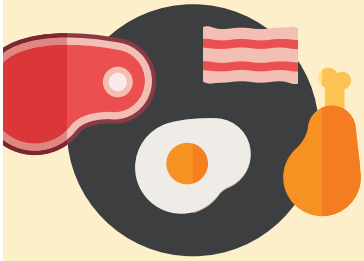
Livestock production causes air pollution, which has been directly linked to respiratory issues and death in surrounding communities[39]. Fine particulate matter from food production causes an estimated 15,900 deaths per year in the US, 80% of which were attributed to livestock production[40] – and this often most impacts communities of colour[41]. Moreover, high-meat diets also damage our health significantly. Reducing average meat consumption in the UK to two to three servings per person per week could prevent an estimated 45,000 premature deaths annually[42].

Pandemic risks & antibiotic resistance

By crowding large numbers of animals together, intensive farming makes them more susceptible to infection and increases the risk of emergence of more virulent disease strains[36]. Moreover, by increasing antibiotic misuse to smooth over poor welfare practices, industrial livestock companies increase the likelihood of antibiotic resistance. In many countries, over 50% of antibiotics are used on livestock[37], whilst antibiotic resistant superbugs are currently responsible for 700,000 deaths a year[38].

Land use, deforestation and biodiversity loss

The production of animal protein and feed uses 83% of the world's farmland, making it one of the biggest drivers of deforestation and biodiversity loss, despite providing only 37% of our protein and 18% of our calories[27]. This land could be used to grow food for direct human consumption instead. An estimated 48% of global tropical deforestation is caused by expanding pastures for cattle production and for soya production, primarily for animal feed[28]. Nearly a quarter of current global pastureland was converted from formerly native forest[29].

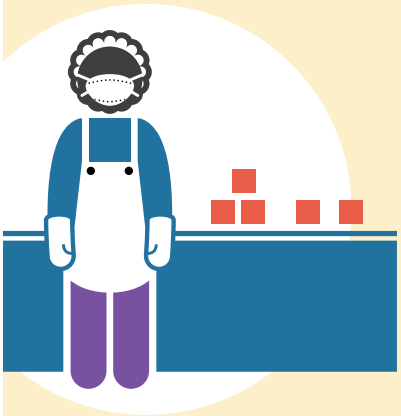


Dietary imperialism

A disproportionate share of global resource use as well as the huge emissions generated by global livestock production is linked to overconsumption of animal protein in high-income markets. For instance, the diet of the average Indian, Nigerian or Thai citizen requires about a quarter of the land per person compared to the diet of the average Brit[31]. The diets of the world's richest 10% are roughly 13 times more energy intensive than the diets of the poorest 10%[32].

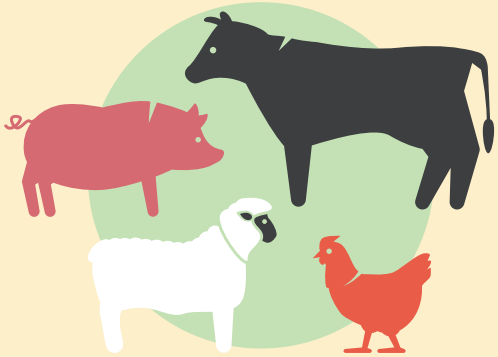
Water and soil degradation

Industrial livestock farming causes soil, water, and air pollution due to the use of fertilisers, chemicals and pharmaceuticals, and the waste it generates. Factory farms often generate more manure than can be absorbed into the soil surrounding the facilities, so it is often stored in large lagoons or over-applied to fields which results in nitrates and other nutrients polluting local soils and water systems[30].



Meatpacker worker exploitation

Many investigations of meat processing plants around the world have uncovered evidence of extremely low (often illegal) wages, limited worker rights and high rates of injury – often with high reliance on exploited migrant workers[34]. In the United States, a worker in the meat industry lost a body part or was sent to hospital for in-patient treatment about every other day between 2015 and 2018 – higher injury rates than occur in sawmills, industrial building construction, and oil and gas well drilling[35].



Animal welfare

Industrial livestock companies rely on very intensive farming systems – often referred to as factory farms – which crowd animals together in stressful, barren environments, often with no access to outdoor space or natural light. Animals are sentient beings, which means they can experience emotions such as joy, pleasure, pain, and frustration[43]. However, life at a factory farm means that animals can't behave according to their natural instincts and experience deep distress and pain.

Exploitation of farming communities and Indigenous peoples

Massive industrial livestock farms put millions of small-scale farmers out of business, as well as harming Indigenous people, whose land is often expropriated. Cattle farming is the main driver of illegal land seizures that violate human rights in Reserves and Indigenous territories in Brazil's Amazon rainforest[33].

BIGGEST FINANCIERS BY LIVESTOCK COMPANY

Below, we expose the biggest creditors to some of the most polluting industrial livestock companies, for the period 2015-22.

JBS

BIGGEST CREDITORS:

1. Barclays ($6.7 billion)
2. Royal Bank of Canada ($4.8 billion)
3. BMO Financial Group ($3.8 billion)
4. Mizuho Financial ($2.7 billion)
5. Truist Financial ($2.4 billion)

PROFILE:

The Brazilian multinational corporation JBS is the world's largest meat processor. In 2021, it emitted an estimated 287.9 million tonnes of GHGs (GWP100 basis) or 540.6 million tonnes of GHGs (GWP20 basis)[44] – making it the world's highest emitting livestock company, causing more emissions than Spain, or more than Chile and Peru combined[45]. Mighty Earth's Soy and Cattle Deforestation Tracker gave JBS its lowest score of 1/100, estimating it was linked to 100,711 acres of deforestation between 2019 and 2021, of which 74,701 acres was potential illegal clearance[46]. HSBC analysts recently warned that JBS "has no vision, action plan, timeline, technology or solution" for monitoring whether the cattle it buys originate from farms involved in rainforest destruction[47]. In 2017, following one of Brazil's biggest ever anti-corruption investigations, JBS agreed to pay a record-breaking $3.2 billion in fines, following testimony that the firm had bribed 1,829 politicians.[48] JBS has the capacity to slaughter an estimated 4.4 billion chickens, 23.5 million cows and 50.3 million pigs per year[49].

TYSON FOODS

BIGGEST CREDITORS:

1. Morgan Stanley ($5.2 billion)
2. Bank of America ($5.1 billion)
3. Royal Bank of Canada ($2.6 billion)
4. Barclays ($2.6 billion)
5. Rabobank ($2.4 billion)

PROFILE:

Tyson is a US-based multinational corporation, the world's second-largest animal protein producer, and the largest in North America. In 2021, Tyson emitted an estimated 83.8 million tonnes of GHGs (GWP100)[50], causing emissions greater than Austria[51]. Tyson have faced allegations of exploitative working conditions for meat packing workers – a 2016 Oxfam report found that employees in Tyson's processing plants were routinely denied bathroom breaks and had to wear adult incontinence products to get through the working day[52]. Tyson allegedly told their often low-wage and migrant employees that they would need to pay for a doctor's visit themselves, even when sustaining on-the-job injuries like deep cuts due to butchering equipment[53]. Tyson Foods has capacity to slaughter an estimated 1.9 billion chickens, 6.4 million cows and 19.9 million pigs per year[54].

MARFRIG

BIGGEST CREDITORS:

1. Bradesco ($1.5 billion)
2. Santander ($1.4 billion)
3. Banco do Brasil ($1.3 billion)
4. HSBC ($1.2 billion)
5. BTG Pactual ($0.8 billion)

PROFILE:

Marfrig is the second-largest beef producer in the world after JBS, and Brazil's second largest food processor. In 2021, Marfrig emitted an estimated 102.6 million tonnes of GHGs (GWP100 basis) or 201.8 million tonnes of GHGs (GWP20 basis)[55], causing emissions nearly as high as Paraguay[56]. Mighty Earth's Soy and Cattle Deforestation Tracker estimates that Marfrig was linked to 50,138 hectares of deforestation of which 42,637 hectares was possible illegal clearance between 2019-21[57]. Marfrig have faced many allegations of supply chain links to ranchers involved in illegal land grabbing and Indigenous rights abuses[58] – including for sourcing cattle from ranchers engaged in a violent land grabbing dispute in Apyterewa, home to the Parákanã Indigenous peoples[59]. Marfrig has the capacity to slaughter an estimated 8.7 million cows per year[60].

Deforestation on illegal dirt road to open land for agriculture and livestock in Brazil. Credit: Paralaxis, Shutterstock

MINERVA

BIGGEST CREDITORS:

1. Itaú Unibanco ($1.0 billion)
2. HSBC ($0.8 billion)
3. Bradesco ($0.8 billion)
4. JPMorgan Chase ($0.7 billion)
5. Bank of America ($0.6 billion)

PROFILE:

One of the biggest producers and marketers of beef and its by-products, live cattle exporters and beef processors, based in South America[61]. Minerva emitted an estimated 34.7 million tonnes CO_2eq of greenhouse gas emissions in 2016[62] – however, these emissions are likely to have significantly increased since then the company has expanded dramatically to become the second largest beef processor in Brazil, following acquisition of some of Marfrig's slaughtering and deboning plants in 2023[63]. Mighty Earth's Soy and Cattle Deforestation Tracker gave Minerva only 20/100, estimating it was linked to 50,310 hectares of deforestation in the two years since March 2019, of which 39,119 hectares was potential illegal clearance[64]. Minerva has the capacity to slaughter an estimated 22 million cows per year[65].

CARGILL

BIGGEST CREDITORS:

1. BNP Paribas ($4.5 billion)
2. JP Morgan Chase ($4.1 billion)
3. Bank of America ($4.0 billion)
4. Deutsche Bank ($3.4 billion)
5. Citigroup ($2.9 billion)

PROFILE:

American multinational corporation Cargill is one of the world's largest livestock processors – but also the world's largest soya trader and a major animal feed producer. Cargill was responsible for 86.3 Mt in GHG emissions in 2016[66], causing emissions greater than Finland or Ecuador[67]. Mighty Earth's Soy and Cattle Deforestation Tracker gave Cargill a score of only 21/100, estimating it was linked to 66,189 acres of deforestation between 2019 and 2021, of which 13,850 acres was potential illegal clearance[68]. Cargill has the capacity to slaughter an estimated 604 million chickens and 8 million cows per year, as well as producing an estimated 19.6 billion tonnes of animal feed per year[69].

DAIRY FARMERS OF AMERICA

BIGGEST CREDITORS:

1. Wells Fargo ($1.3 billion)
2. US Bancorp ($1.1 billion)
3. Farm Credit Services Commercial Finance Group ($1.0 billion)
4. Bank of America ($0.8 billion)
5. JPMorgan Chase ($0.7 billion)

PROFILE:

Dairy Farmers of America is a national milk marketing cooperative for dairy farmers in the United States. In 2021, Dairy Farmers of America emitted an estimated 45.6 mega tonnes of GHGs (GWP100 basis) or 97.8 megatonnes of GHGs (GWP20 basis)[70], causing emissions greater than Denmark or Sri Lanka[71]. Dairy Farmers of America has faced criticism from its own members and non-members alike for its growing monopsony market power and lack of transparency over where its profits go, with only about a quarter of the co-op's profits paid directly to its farmer-members[72]. DFA has paid out large sums in class-action lawsuits brought by its own members, including over alleged price fixing and market control[73]. The World Benchmarking Alliance gives Dairy Farmers of America a score of only 11/100 for a range of environmental and social indicators[74].

FONTERRA

BIGGEST CREDITORS:

1. ANZ ($0.9 billion)
2. HSBC ($0.7 billion)
3. Commonwealth Bank of Australia ($0.6 billion)
4. Westpac ($0.6 billion)
5. National Australia Bank ($0.5 billion)

PROFILE:

Fonterra is a New Zealand dairy co-operative and the world's largest dairy exporter, responsible for around 30% of the world's dairy exports[75]. In 2021, Fonterra emitted an estimated 30.9 megatonnes of GHGs (GWP100) making it one of the highest-emitting global livestock companies[76], equivalent to about 45% of New Zealand's total emissions from all sectors[77]. A colossal 43.3% of New Zealand's total emissions (from all sectors) come from cattle and sheep[78], with Fonterra being New Zealand's largest dairy company handling over 90% of New Zealand milk production[79] – Fonterra also has emissions from overseas ventures outside of New Zealand, such as in Australia and China. Fonterra has repeatedly lobbied against any measures by the New Zealand government to reduce emissions from the livestock sector[80].

WH GROUP

BIGGEST CREDITORS:

1. Morgan Stanley ($3.4 billion)
2. Farm Credit Services Commercial Finance Group ($1.8 billion)
3. Bank of America ($1.2 billion)
4. Barclays ($1.0 billion)
5. Huantai Securities ($1.0 billion)

PROFILE:

WH Group is the world's largest producer of pork – a Chinese multinational company with significant operations in China, the US and Europe, including US-based subsidiary Smithfield Foods. In 2021, WH Group emitted an estimated 23.9 million tonnes of GHGs (GWP100 basis) or 37.7 million tonnes of GHGs (GWP20 basis)[81]. Smithfield Foods has been accused of creating over 3,300 lagoons of contaminated waste containing faeces, urine, blood, and bodily fluids in North Carolina[82]. Around 160,000 North Carolinians live within a half-mile of a pig or poultry farm[83], causing damaging health and wellbeing impacts disproportionately experienced by local African American, Hispanic and Native American communities[84]. WH Group have the capacity to slaughter an estimated 48.3 million pigs per year[85].

PROGRESS REPORT: BIG LIVESTOCK COMPANIES – DENIAL AND GREENWASH

Chicken processing factory. Credit: OVKNHR, Shutterstock

Industrial livestock companies are structurally at odds with a sustainable future – they are hardwired to pursue growth in the unsustainable mass-production of meat and dairy to protect the profits of their core business. For this reason, engagement with these companies is not a viable strategy – defunding them is the only sustainable decision for financial institutions.

Consistent with this, industrial livestock companies' progress on reducing their environmental and social impact since our last report has been minimal. Most importantly, at the time of writing **none of the 55 industrial livestock companies covered in this report have plans to substantially reduce their livestock numbers – instead, most have doubled down on plans to increase livestock production. For instance,** in 2023 JBS said that they were hoping for a 70% increase in global animal protein consumption by 2050[86] – impossible if we are to remain within planetary boundaries. Tyson Foods is projecting that global consumption of beef, pork and chicken will rise "by close to 95 billion pounds over the next 10 years" and is "targeting volume growth ahead of the market in every segment"[87]. Plans to increase livestock numbers and oppose dietary change are completely inconsistent with reducing global livestock emissions by 61% by 2036 or achieving a peak in global livestock numbers by 2025, which is required in order to limit global warming to below 2°C[88]. Since our last report, **industrial livestock companies have only intensified their lobbying against the reductions in meat and dairy production and consumption which scientists tell us are imperative to prevent runaway climate change (see Box 'A Timeline of Opposing Climate Action').**

For the most part, industrial livestock companies have instead focused on incremental reforms to livestock practices to reduce their emissions, including feed additives, soil carbon sequestration and biogas production – which at

best offer limited emissions reduction potential, and at worst greenwash this polluting industry, enabling it to expand:

- **Feed additives:** Many dairy companies such as Fonterra and Dairy Farmers of America are pushing feed additives as a solution[89]. But most feed additives for cattle have not yet been tested in real-life settings at scale, and rolling out feed additives across the whole sector would be an extremely complex task. Moreover, feed additives are difficult to administer regularly in pastures where most cattle spend the majority of their lives (and emit the majority of their methane). As a result, a recent report estimated that changes in feed and additives would result at most in a 1-12% reduction in EU methane emissions from livestock[90]. Other experts have argued that it will likely result in only an 8.8% emissions reduction (if successfully rolled out through all feedlot systems for cattle, a huge undertaking)[91].

- **Grazing management: Cargill's BeefUp Sustainability Initiative claims that grazing management will result in substantial emissions savings**[92] – but a comprehensive review found that global soil carbon sequestration from grazing management has potential to offset only 4-11% of global livestock emissions, "with the higher end estimate assuming a strong level of ambition"[93].

- **Biogas:** Industrial livestock companies from JBS[94] to Cargill[95] have started investing in biogas plants, talking up its emissions reduction potential – but recent Feedback reports have uncovered that biogas offers limited emissions reduction potential for the livestock industry – and in many cases, has actually created perverse incentives for the livestock sector to *expand*[96].

Aerial image of cattle feedlot, Alberta, Canada. Credit: Russ Heinl, Shutterstock

Realising that it is impossible to achieve emissions reductions in line with the Paris agreement without reducing livestock numbers, the livestock industry has turned to creative accounting using GWP* – a hugely dangerous and distorting climate metric which lets large historical methane polluters off the hook for continued methane emissions[97]. Under this misleading metric, the US beef and dairy industry could claim "climate neutrality" with only 0.5-1% decreases in their methane emissions per year between 2020-30, and only 18-32% reduction in by 2050[98]. The US National Cattlemen's Beef Association (NCBA) – whose members include Tyson, Cargill and National Beef (owned by Marfrig) – have thus claimed that under GWP* it was "going to be pretty easy to" become climate neutral by 2040 "without reducing the number of cattle" – and has been furiously lobbying for GWP* to be adopted by the US government[99].

As a result, some companies have begun to make grand unsubstantiated claims. For instance, JBS – which was a member of the NCBA until 2021[100] – has claimed it will achieve net zero emissions by 2040[101]. Some regulators are becoming wise to this. For example, in 2023, in response to a challenge raised by the Institute for Agriculture & Trade Policy (IATP), the US National Advertising Review Board recommended that JBS USA discontinue its claims that "JBS is committing to be net zero by 2040", on the grounds that this is "misleading" and JBS does not have a "formulated and vetted plan" to achieve this goal[102]. This year, the New York attorney general sued JBS USA, accusing the company of misleading customers over its climate goals, arguing that JBS has "no viable plan to meet its commitment to be net zero by 2040"[103].

However, for the most part, regulators are continuing to give industrial livestock companies a free ride to continue making unscientific claims.

Most of the livestock companies featured in this report have no plans to measure, report or reduce their absolute supply chain (scope 3) emissions, where most emissions occur. In the few exceptions where companies do, even these plans have severe limitations. For instance, Danone has committed to reduce its absolute scope 3 emissions by 30.3% by 2030[104] – and to reduce absolute methane emissions from its milk by 30% by 2030[105]. Nowhere in this plan does Danone mention reducing livestock numbers – instead relying on a combination of increasing milk production per cow, feed additives and manure management techniques like biogas production[106]. Even if we assume that feed additives, which are as yet mostly untested at scale, can be rolled out successfully by 2030, it is questionable whether further progress would be possible beyond this 30% once the limitations of these technical solutions are reached – in order to achieve more significant reductions, livestock reductions will be necessary.

There are biological limits to how much the emissions intensity of livestock production (emissions per kg meat or dairy) can be reduced, without reductions in livestock numbers. A 2018 meta-study of over 40,000 farms revealed that even the very lowest impact meat and dairy products still almost always cause significantly more environmental harm than the highest impact vegetable and cereal products[107].

Even where a minority of industrial livestock companies have begun to diversify into the production of meat and dairy alternatives such as plant-based burgers, they make it clear that they consider this an additional extra, and not a substitute for the continued growth of their main livestock business. For instance, JBS acquired plant-based protein brand Vivera in 2021[108] and Tyson Foods has a plant-based range called Raised & Rooted[109], yet as noted above, both have plans to significantly increase their meat production alongside this.

A TIMELINE OF OPPOSING CLIMATE ACTION

- **2014-20:** Meat and dairy industries spent $30 million lobbying in the US, and $18 million lobbying in the EU between 2014-20[110].
- **2021:** A 2021 investigation by DeSmog finds that the livestock industry has been spending millions lobbying against any transition to lower-meat diets which might limit their growth, and spreading misinformation downplaying the impacts of meat[111].
- **2021:** An Unearthed investigation finds that a coalition of meat industry associations pressured the 2021 UN Food Systems Summit to promote factory farming and an expansion in global meat consumption[112].
- **2023:** An IPCC report is amended following pressure from Brazil and Argentina[113] – which are heavily influenced by domestic meat industry lobbyists – to remove text mentioning that a "shift to diets with a higher share of plant-based protein" in high-meat consuming countries would lead to considerable reductions in emissions, and that "Plant-based diets can reduce GHG emissions by up to 50% compared to the average emission intensive Western diet"[114].
- **2023:** A Guardian investigation reveals that the FAO "censored, sabotaged, undermined and victimised" staff trying to highlight the negative impacts of livestock production (including authors of its *Livestock's Long Shadow report)*, following pressure from meat, dairy and feed producers as well as high-meat producing countries like Brazil, the US and Australia[115].
- **2023:** Meat and dairy lobbyists turn out in record numbers at COP28[116].

PROGRESS REPORT: FINANCIAL INSTITUTIONS – A FAILURE TO ACT

Many financial institutions still have completely inadequate agriculture and land use policies – often having no plans to reduce their financed emissions in this sector. Where policies do exist, huge loopholes mostly enable financial institutions to continue to finance deforestation, human rights abuses, pollution, pandemic risks and animal welfare abuses.

For example, many financial institutions now have policies on deforestation – but should be judged on whether these policies have substantially changed their practices. For instance, HSBC claims in its Agricultural Commodities Policy that it will "not knowingly provide financial services to high-risk customers involved directly in or sourcing from suppliers involved in deforestation", including those involved in "cattle ranching"[117] – yet between 2015-22, HSBC was the world's second largest creditor to Minerva and the fourth largest creditor to Marfrig, two of South America's largest beef companies, and frequently associated with deforestation. Mighty Earth's Soy and Cattle Deforestation Tracker estimates that Marfrig was linked to 50,138 hectares of deforestation of which 42,637 hectares was possible illegal clearance, and that Minerva was 50,310 hectares of deforestation of which 39,119 hectares was possible illegal clearance, between 2019-21[118]. Bank of America have a Forests Practices Policy which allegedly ensures "lending proceeds are not used to finance commercial projects or operations" which lead to deforestation and "will not finance companies or projects that collude with, or knowingly purchase timber from, illegal logging operations"[119]. Despite this, Bank of America were the fifth largest creditor globally to Minerva between 2015-22. Rabobank also claims that it does "not finance any deforestation, even if legally allowed" in Brazil, and does "not on-board or maintain customers involved in illegal deforestation that occurred after 2005"[120], yet it was the sixth-largest financier of JBS, and the tenth-largest creditor to Minerva between 2015-22.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Climate change + Add to myFT

Climate campaigners turn their focus from fossil fuels to meat

Investors pressed to price in financial risks to agribusiness as a result of global warming

Source: Financial Times.

Barclays and HSBC London headquarters. Credit: Feedback

In a similar vein, Barclays announced in 2023 to much fanfare that it would no longer finance beef or soya companies directly involved in illegal deforestation in South America[121], claiming that it had "not provided financing to entities that undertake these activities since 2021"[122]. However, despite this, Barclays was still the world's biggest provider of credit to JBS between 2021 and 2022 – during this period it provided $84 million in corporate loans, underwrote $2.59 billion in bond issuances, and provided $337 million in revolving credit facilities to JBS and its subsidiaries[123]. Barclays argues that this does not contradict its policy, because it only finances JBS's US and European subsidiaries, such as JBS USA and Pilgrim's Pride. This enormous loophole illustrates the problem of treating subsidiaries as separate to a parent company. In reality, subsidiaries often have strong links to their parent company's business, so financial support for one represents support for the other. For instance, as of July 2023, JBS USA was a wholly owned subsidiary of JBS S.A.[124], which means that JBS S.A. is the main financial beneficiary of JBS USA profits – US subsidiary profits are included as part of JBS S.A.'s financial reports[125]. JBS USA is also involved in importing meat from its parent company's operations in South America – with 15.9% of JBS USA LLC's import shipments coming directly from Brazil, often from JBS S.A.[126]. Soya fed to livestock in the US and Europe are often imported from South America, with deforestation risks. Crucially, JBS USA and Pilgrim's Pride cause huge emissions and other environmental impacts, regardless of their connection to South American deforestation.

Beyond deforestation, there is limited recognition within the financial sector of the huge environmental and social impacts of livestock production. Very few of the banks analysed for this report have explicit policies focused on meat and dairy's other emissions – such as methane from enteric fermentation (cow farts and burps). For instance, a recent report found that only four

out of 20 investors studied had sustainable agriculture policies, with none making reference to methane – and only eleven out of 20 banks studied had sustainable agriculture policies, with only three of these making any reference to methane[127]. Livestock's other considerable emissions are linked to animal feed production, manure, and other land use impacts. Vitally, this includes the opportunity costs of using land which if not used for grazing or animal feed production, could be used for reforestation or other nature restoration as wild grasslands or wetlands.

Banks often have no policies to cover these impacts. Bank of America is a prime example – at the time of writing, the institution has no specific 2030 goals for reducing emissions from the agriculture and land use sector financing (only for the energy, power manufacturing and auto manufacturing sectors)[128]. Bank of America was the world's largest creditor to the big 55 industrial livestock companies between 2015-22 – it is the second-largest creditor to Tyson Foods, third-largest creditor to Cargill and WH Group, fourth-largest creditor to Dairy Farmers of America, and fifth-largest creditor to Minerva. It is unclear how this can be compatible with Bank of America's commitment to achieving net zero greenhouse gas emissions before 2050 in its financing activities[129].

To tackle this, financial institutions must introduce explicit criteria to require large livestock companies to reduce their livestock numbers in line with a peak in absolute global livestock numbers by 2025 and reducing global livestock emissions by 61% by 2036, with faster and deeper reductions in higher-income countries, in order to ensure the companies they are financing are consistent with the Paris agreement[130]. Financial institutions must stop financing companies which do not meet these criteria.

Protestors calling for development banks to Stop Financing Factory Farming. Credit: Julia Nikhinson

Meat in supermarket. Credit: www.hollandfoto.net, Shutterstock

Beyond climate and deforestation policies, meat and dairy's considerable impacts on human rights violations, air and water pollution, pandemic risks and animal welfare abuses all need to be urgently addressed, through actions not words. For instance, many of JBS's top financiers such as Barclays and the Royal Bank of Canada have statements on Modern Slavery[131] – yet their finance for JBS has continued in the wake of numerous scandals. For instance, in 2022 Global Witness reported that JBS had bought cattle from a family of ranchers called Seronni who were alleged to have used slave labour and accused of being previously involved in land-grabbing[132]. Greenpeace has also reported that JBS admitted to sourcing almost 9,000 cattle from rancher Chaules Pozzebon or his family between 2018 and 2022[133]. Pozzebon is currently serving a 99-year sentence for crimes including leading a criminal gang and has been separately convicted of using slave labour[134].

More important than policies on paper, though, is action to defund big livestock. Ironically, the banks and investors ranked highest by a recent report for having more advanced policies on sustainable agriculture and emissions included Barclays, BNP Paribas, Citigroup, HSBC, JP Morgan Asset Management and Blackrock[135]. Our analysis shows that all of these institutions were among the largest financiers of big livestock between 2015-22. Without matching their words with action, financial institutions are simply greenwashing.

We must learn from the blatant inadequacy of the financial sector's fossil fuel policies, where superficially ambitious policies have allowed financial institutions to largely continue business-as-usual. For instance, many banks have now introduced restrictions on project-specific lending to new oil and gas projects, which is important progress. But between 2016 and 2021, only 8% of financing to 50 upstream oil & gas expanders by European banks was in the form of project finance or dedicated financing – the other 92% of lending, as well as capital markets underwriting, occurs at the general corporate level

finance i.e. to the fossil fuel company, rather than for a specific project run by the fossil fuel company[136]. In most cases, the biggest financial institutions still allow lending, and even more often underwriting, to companies engaged in oil and gas expansion.

We must not allow financial institutions to get away with similar ploys in the agriculture sector. Banks should not be allowed to continue pouring money into these polluting companies under the pretence that they are helping pressure them into a sustainable transition – the reality is that these companies are unreformable within the timescales needed to avert global climate crisis.

Finally, whilst there is an urgent need to hold financial institutions morally accountable, we must also be realistic that many of them are unlikely to move voluntarily at the speed needed to avert climate crisis, because they have huge structural incentives to prioritise short-term profits over the long-term wellbeing of humanity and the ecosystems we rely on for survival. It is therefore imperative that our democratically accountable public institutions regulate private finance to stop it funding polluting industries, and cut off public funding to these industries too – ranging from reforms to subsidies and public procurement, to divesting public pension funds and cutting off funding from multilateral development banks to industrial livestock production. Industrial livestock companies and their funders are responsible for vast loss and damage through their emissions and other harmful impacts – these companies need to be taxed to pay reparations to those most affected. And the urgently needed just transition to lower production and consumption of livestock products, will require public investment and policy as part of a broader Green New Deal – this should be funded through progressive taxation on large corporations (particularly polluters), the financial sector and rich individuals, to ensure climate justice.

POSITIVE EXAMPLES OF DEFUNDING BIG LIVESTOCK COMPANIES

There are some exceptions to financial institutions' general failure to act to defund industrial livestock. Since our first *Butchering the Planet* report was published in 2020, there have been notable examples of financial institutions taking this vital step. For instance,

- **De Volksbank:** The fourth largest banking group in the Netherlands which manages €37 billion in savings, has a policy of avoiding investments in livestock farming on the grounds of its negative impacts on food security, climate change, biodiversity, health and human rights[137].
- **Australian Ethical:** With $5.4 billion in funds under management, Australian Ethical has a policy of not investing in large-scale commercial animal agriculture[138].

Other financial institutions have divested from specific industrial livestock companies:

- **Norges Bank:** Has big livestock companies JBS SA and Marfrig on its exclusion list as of 2023 – JBS SA for "gross corruption" and Marfrig for "severe environmental damage"[139]. It divested $143 million in JBS shares in 2018[140].
- **Aviva:** In 2023, Aviva also said it now considers JBS a 'red rated issuer', which prevents any further active investment in the company, although it retains some passive exposure to JBS through index funds[141].
- **Nordea Asset Management:** In 2020 Nordea Asset Management, the investment arm of northern Europe's largest financial services group, divested from JBS over deforestation links, selling €40 million in shares[142].

POLICY RECOMMENDATIONS

DEMANDS TO PRIVATE BANKS AND OTHER FINANCIAL INSTITUTIONS:

- Take urgent action to publish and implement agriculture sector-specific environmental targets and action plans to align all agriculture sector financing with the Paris Agreement and the Global Biodiversity Framework. Action plans must:
    - Recognise the need for a just transition to lower livestock production and sustainable healthy diets with significantly lower consumption of meat and dairy.
    - Include robust policies to halt deforestation and biodiversity loss, reduce pandemic risks, reduce air and water pollution, respect human and labour rights including the rights of Indigenous Peoples and local communities, enact zero tolerance for violence against human rights, land, and environmental defenders, and establish a robust grievance mechanism.
- As part of these action plans, stop all new financing to industrial livestock companies – starting with the 55 companies named in this report, with priority to the highest-emitting companies such as JBS, Cargill, Tyson, Marfrig and Minerva – including:
    - No new corporate loans or revolving credit facilities, or renewal of these types of finance
    - No underwriting of share or bond issuances
    - Divest all shareholdings and bondholdings within the next three years.
- Engage with retail and catering clients to ensure they introduce time-bound targets to substantially reduce meat and dairy in their food procurement and menus to sustainable levels in line with the Paris Agreement and the Eat-Lancet Planetary Health Diet. Continued financing to companies in these sectors should be conditional on adequate action being taken.
- Engage with smaller-scale livestock producer clients to transition to lower livestock production levels and diversify into nature restoration and/or more plant-based production, where appropriate.

RECOMMENDATIONS FOR POLICYMAKERS:

- Regulate private banks to ensure they phase out all finance for industrial livestock corporations.
- Divest all public pension funds from industrial livestock companies within the next 5 years.
- End all finance from multilateral development banks to industrial livestock companies within the next 5 years.
- Introduce taxes on polluters including industrial livestock companies, their financial funders and those who profit from them to pay reparations for the loss and damage they cause.
- Fund a Green New Deal – including public investment in a just transition to lower production and consumption of livestock products – through progressive taxation on corporations and rich individuals, and a Financial Transaction Tax on the financial sector.
- Shift subsidies away from big livestock companies to support instead a just transition to lower meat and dairy production, including measures to protect workers in the industrial livestock sector, smaller-scale farmers and citizens, rooted in food sovereignty principles.
- Introduce policies to incentivise a just transition to lower meat and dairy consumption– such as ensuring that public procurement of meals for institutions like schools and hospitals is aligned with healthy, sustainable diets.
- Regulate industrial livestock companies by setting limits on pollution of water, air and soils, taxing emissions (including methane and nitrous oxide), cracking down on deforestation from grazing and animal feeds, increasing protections for workers, restricting use of antibiotics, and increasing animal welfare standards.

ANNEX 1 – INDUSTRIAL LIVESTOCK COMPANIES INCLUDED WITHIN SCOPE OF THIS REPORT

The following 55 industrial livestock companies were included within the scope of this report. The list of companies within scope was based on Profundo research, commissioned by Friends of the Earth – which analysed which were the largest livestock companies in four key sectors. In some cases, there was overlap between the lists (the same company was one the largest producers/processors in multiple categories), which is why the final number of companies is 55.

- **Pork:** The largest 15 pork producers, based on Pig Progress (2021, June 18), "Who are the world's mega pork producers?", online: https://www.pigprogress.net/world-of-pigs/who-are-the-worlds-mega-pork-producers/
- **Poultry:** The largest 15 poultry processors, based on Watt Poultry International (2021, October), "World's top 50 broiler producers", p. 6-8, online: https://poultryunion.org/f/poultryint202110-dl_1.pdf
- **Beef:** The largest 10 beef processors, based on a variety of sources (there was no publicly available ranking of the largest producers). We have not included an extended list of 15 beef producers because the sector is very concentrated and outside the top 10 production figures decline significantly – and there is also low data availability.
- **Dairy:** The largest 15 dairy processors, based on IFCN Dairy (2021, December 10), "People, planet and profit of the top 20 dairy processors", Press release, online: https://ifcndairy.org/top-dairy-processors-commit-to-climate-goals/
- **Feed:** The largest 10 animal feed producers, based on data from Feed Strategy (2022, September 8), "Top Feed Companies: 144 global producers rank in 2022", online: https://www.feedstrategy.com/business-markets/feed-production-by-region/article/15443042/top-feed-companies-144-global-producers-rank-in-2022
- **Soya traders:** The largest 5 soya traders, based on data from Trase.earth (2023), "Supply chains", online: https://supplychains.trase.earth/explore

Top producers	HQ Country	Beef ranking	Dairy ranking	Feed ranking	Pork ranking	Poultry ranking	Soy trader ranking
ACOLID – Arab Company for Livestock Development	Saudi Arabia					13	
ADM – Archer Daniels Midland	United States						3
Agropur	Canada		14				
Amul	India		8				
Arla Foods	Denmark/Sweden		4				
BRF – Brasil Foods	Brazil			9	10	2	
Bunge	United States						2
California Dairies	United States		12				
Cargill	United States	4		4		11	1
China Mengniu Dairy	China		10				
COFCO Group	China						4
Cooperl Arc Atlantique	France				15		
CP Group	Thailand			1	6	5	
Danish Crown	Denmark	9					
Danone	France		13				
DFA – Dairy Farmers of America	United States		1				
DMK Deutsches Milchkontor	Germany		15				

Top producers	HQ Country	Beef ranking	Dairy ranking	Feed ranking	Pork ranking	Poultry ranking	Soy trader ranking
Fonterra Cooperative Group	New Zealand		3				
ForFarmers	Netherlands			10			
FrieslandCampina	Netherlands		6				
Fujian Sunner	China					15	
Glanbia	United States		11				
Groupe Bigard	France	6					
Guangdong Haid Group	China			3			
Guangdong Wens Foodstuff Group	China			10	2	4	
Industrias Bachoco	Mexico					9	
Inner Mongolia Yili	China		9				
JBS	Brazil	1		7		1	
Koch Foods	United States					6	
Land O'Lakes	United States			5			
LDC Group	France					12	
Le Groupe Lactalis	France		2				
Louis Dreyfus Company	Netherlands						5
Marfrig	Brazil	3					
Minerva	Brazil	2					
Muyuan Foodstuff	China			6	1		
Nestlé	Switzerland		5				
New Hope Group	China			2	5		
NH Foods	Japan	8					
Perdue Farms	United States					10	
Pipestone	United States				11		
Saputo	Canada		7				
Seaboard	United States				12		
Sichuan Dekon Group	China				9		
Suguna Farms	India					14	
Techbank Food	China				7		
Tönnies Lebensmittel	Germany	10					
Triumph Foods	United States				8		
Twins Group (Shuangbaotai Group)	China			7	13		
Tyson Foods	United States	5		10		3	
Vion Food Group	Netherlands	7					
Wellhope Agri-Tech	China					8	
WH Group	China				3		
Yangxiang	China				14		
Zhengbang Group	China				4		

Note: Sanderson Farms was ranked the 7th largest producer of poultry in the list above, but has since been bought up by Cargill, so for the purposes of this report has been merged with Cargill. Financing of Sanderson Farms prior to the takeover is included in the scope of the financing figures.

ANNEX 2 – METHODOLOGY

Feedback collaborated with Greenpeace to commission the not-for-profit research firm Profundo to map the financial backers of industrial livestock companies. The financial research utilised Refinitiv, Bloomberg, IJGlobal, Trade Finance Analytics, company publications, company registers and media archives to identify financial relationships.

This report covers loans and underwriting between January 2015 and December 2022. Unless otherwise stated, shareholdings and bondholdings relate to the most recent filing date, March 2023. This includes filing dates from as early as 2020 that have not been updated/adjusted by the investor and/or the financial database. This may be due to differences in regulatory requirements, for example, and may also indicate that there is no change in position, i.e. the number of shares held has not changed.

This research is primarily based on data from financial databases, which only list syndicated financing. In addition, the research sought to identify bilateral financing through annual reports, company disclosures, media archives and other sources. However, sometimes such deals are not publicly disclosed by the company. Therefore, where no financing of industrial livestock companies was found, it is possible that the financial institution either 1) does not provide finance to these industrial livestock companies, or 2) it is possible that bilateral financing has been provided which was not disclosed and as such did not show up our research. Therefore, we cannot say with 100% confidence that financial institutions do not finance industrial livestock companies.

The databases relied on for this research do not always include details on how individual banks contribute to a financial deal. For syndicated loans and underwriting, this information is included where possible. When this information is not available, a two-step method was used to calculate this amount drawing on the total value of a loan or issuance, as well as the number of banks involved.

In step one, a ratio of an institution's management fee to the management fees received by all institutions is calculated.

Participant's contribution: $$\left(\frac{\textit{individual participant attributed fee}}{\textit{sum of all participants' attributed fees}} \times \textit{principal amount} \right)$$

When the fee is unknown for one or more participants in a deal, a second method is used, called the 'bookratio'. This determines the commitment distribution of bookrunners and other managers.

Bookratio: $$\frac{\textit{number of participants} - \textit{number of bookrunners}}{\textit{number of bookrunners}}$$

Table 2 shows the commitment assigned to bookrunner groups with this estimation method. When the number of total participants in relation to the number of bookrunners increases, the share that is attributed to bookrunners decreases. This prevents very large differences in amounts attributed to bookrunners and other participants.

Table 2: Commitment assigned to bookrunner groups

Bookratio	Loans	Issuances
> 1/3	75%	75%
> 2/3	60%	75%
> 1.5	40%	75%
> 3.0	< 40%*	< 75%*

* In case of deals with a bookratio of more than 3.0, we use a formula which gradually lowers the commitment assigned to the bookrunners as the bookratio increases. The formula used for this:

$$\frac{\frac{1}{\sqrt{\textit{bookratio}}}}{1.443375673}$$

The number in the denominator is used to let the formula start at 40% in case of a bookratio of 3.0. As the bookratio increases the formula will go down from 40%. In case of issuances the number in the denominator is 0.769800358.

ANNEX 3 – CLARIFICATIONS

Companies with under 50% of their revenue from industrial livestock

For most of the livestock companies featured in this report, their core business is the mass-production of meat and dairy at unsustainable scale, with well over 50% of their revenue coming from animal protein. This makes them particularly unreformable, such that defunding these companies is the only appropriate action banks and governments can take. For instance, the proportion of company revenue that comes from animal protein is 91% of JBS[143], 95% for Tyson Foods[144], 99% for Marfrig[145], and 100% for Minerva[146]. FitchRatings found that Cargill's Animal Nutrition and Protein segment was responsible for over 50% of Cargill's EBITDA in fiscal year ending May 2022[147] – also operating in other deforestation-risk commodities like palm oil.

For a minority of the companies covered by this report, under 50% of their revenue comes from animal protein production or processing. For instance, under 50% of Danone's sales are dairy[148], but they are one of the world's largest dairy producers. For these companies, there may be a more justifiable case for engagement rather than total divestment. We have kept these companies in this report as they are still some of the world's largest producers and processors of livestock, and therefore still have a significant stake in the industry continuing at an unsustainable scale. Even these companies have shown little sign of significant reform to date, so if banks do opt for engagement with these companies, this must be conditional on time-bound expectations of progress – failure to achieve this should be met with divestment. The top feed companies are often also some of the largest meat processors – such as Cargill or Charoen Pokphand Foods – but the soya traders are often more diversified, such as Bunge which operates in soya but also canola, corn, palm and wheat.

Extensively-reared ruminants

The mass-production of meat by industrial livestock companies often involves intensive "factory farming", with vast, highly concentrated, operations under centralised corporate control – but not always. The boundary is often more complex – for instance, companies like JBS frequently source livestock from many smaller farms grazing cattle. These farms are still part of industrial livestock systems, however, because their controlled grazing systems are vertically integrated into international value chains, via vast multinational corporations like JBS, Tyson and Cargill, which drive ever increasing demand for mass-market meat and dairy at unsustainable scales.

Cooperatives

A handful of the companies in this report are farmer-owned cooperatives – such as Fonterra, which is a New Zealand-based multinational publicly traded dairy co-operative owned by around 9,000 New Zealand farmers, and FrieslandCampina which is a Dutch multinational dairy cooperative. We have included these companies within scope as industrial livestock companies because they are vertically integrated into international value chains – and their core business is still the mass-production of meat and dairy at unsustainable scale, so they are unlikely to be reformable. See Fonterra case study for example.

Note on a just transition

In all of the cases above, it is important to provide a just transition for workers employed directly or indirectly by these companies – such as smaller-scale farms and farmworkers who might supply them, or the meatpacking workers employed by them. Just as fossil fuel production must be dismantled but their workers should be treated with dignity and retrained in other sectors, workers in the meat and dairy industries need support to transition to a future in other sustainable food production (which might include livestock production at smaller more sustainable scales).

Smaller-scale farmers

In contrast to the industrial livestock companies we include within scope of this report, smaller-scale livestock farms operate at a more sustainable scale. We welcome engagement with smaller farms that are producing plant-based foods, or more sustainable volumes of meat and dairy, to encourage a just transition to lower meat and dairy production, as part of shift to more sustainable diets.

Subsidiaries

Within the scope of this report, we include subsidiaries of companies under the umbrella of the parent company. So, for instance, we count financing of JBS USA and Pilgrim's Pride as financing of their parent company, JBS.

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Published March 2024

Citation: Feedback (2024), *Still Butchering the Planet: The big-name financiers bankrolling livestock corporations and climate change – 2024 update*. London: Feedback.

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Registered in England and Wales,
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