# ABP: INVESTING IN AN UNINHABITABLE WORLD

How the Netherlands' biggest pension fund continues to invest in global factory farming

WORLD ANIMAL PROTECTION

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**About this report**
This report investigates the financial involvement of ABP – the biggest Dutch pension fund in the meat and dairy supply chain, with a special focus on animal welfare.

**Authorship**
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**Suggested citation**
World Animal Protection (2022), ABP: Investing in an uninhabitable world. How the Netherlands' biggest pension fund continues to invest in global factory farming. World Animal Protection, Den Haag, the Netherlands.

**Cover photo:** Pregnant mother pigs live in cramped cages (gestation crates) where they can barely move with no enrichment. This causes severe stress, discomfort and suffering, but these are still used in many parts of the world. Most of the floor is solid, with a small portion on the back on slatted floor. Credit: World Animal Protection

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Image: Mass soybean harvesting at a farm in Mato Grosso state, Brazil. Credit: AlfRibeiro / Adobe Stock

# EXECUTIVE SUMMARY

**To prevent catastrophic climate change, the way humans produce and consume food needs to profoundly transform. Current food systems have far-reaching negative impacts on the climate biodiversity, human health, workers, local communities and animal welfare. The main culprit: global factory farming and the 'meatification' of global diets.[i] Financial institutes play a huge part in this. Investors and banks dominate the allocation of resources within the modern globalized economy and so are bankrolling our current crises, while they could also use their power for a more sustainable future. ABP, the Netherland's largest pension fund and the fourth largest in the world, invests billions in global factory farming. This needs to change if it wants to align with global and national demands.**

This report focusses on ABP's investments in global factory farming. First, it outlines why this should be ABP's priority. Second, it maps ABP's billions of euros invested in the production and consumption of industrial meat and dairy. Next, it illustrates the gap between what would constitute a level of minimum responsibility vis-à-vis the policy of the companies ABP is investing in, using a limited set of criteria pertaining to 'less and better animal products.' For a deeper dive, it puts the spotlight on JBS, since this is the biggest meat company in the world – in which ABP invests tens of millions of euros. The report concludes with a series of recommendations for ABP.

## Money flows

- The report identifies over 8 billion euros of investments in a selection of meat and dairy industry related companies – ranging from meat and dairy producers to supply chain companies and banks.
- Over 1 billion euros goes directly to the first ten meat and dairy producers ABP invests in, such as JBS and Tyson Foods.
- Over 1.5 billion euros goes to the five biggest retailers and fast-food companies in the world, such as McDonalds, Starbucks and Costco.
- Over 1 billion euros go to the five biggest supply companies in the world; and
- Over 4.3 billion euros go to a selection of banks linked to investments in animal farming.

Important to note is that not all investments of ABP were assessed due to the large number of investments. Therefore, the above numbers only represent part of ABP's total investment portfolio.

## ABP's failing policy

As the IPCC notes in its 2022 report, policy coverage remains limited for emissions from agriculture. This is certainly true for ABP. Furthermore, given that ABP is the pension fund for the government sector, it is also important to consider to what extent its vision and policy is aligned with the Dutch government.

The Dutch government has committed to a sustainable and humane food system by transitioning to a circular farming system by 2030 as well as a reduction of animal protein consumption – towards a 50-50% intake of animal vs plant proteins by 2030. Additionally, the Netherlands is an advocate for better and more comprehensive farm animal welfare legislation within the EU. In its 2020 government agreement it committed to a pathway towards a 'animal dignified livestock sector'. At EU level, the European Commission has announced the plan to phase out cages in European livestock farming and review and improve current animal welfare legislation. The Netherlands is a strong supporter of this move.

These Dutch ambitions form a stark contrast with ABP's investments. While ABP has identified agriculture and food as an important focus, the vision is limited to improving business as usual by achieving "efficient and responsible commodity chains" and no clear targets have been set. While ABP boasts about responsibilities and demands such as countering deforestation, decreasing CO2 footprint and decreasing waste, they keep investing in companies with huge detrimental impacts on nature and the climate, such as JBS and Tyson Foods.

Moreover, research into the policies of ten meat and dairy companies ABP invests in, shows that all of these companies fail to comply with the full set of absolute minimal animal welfare criteria for pigs, chickens and cows, as you can see on the table in the next page. Many of the companies still use gestation crates for example, one of the worst forms of animal cruelty. Furthermore, only one out of these ten companies has a clear statement on a shift towards less animal proteins.

[i] *Weis, T. (2013). The Ecological Hoofprint, The Global Burden of Industrial Livestock, p.1-4*

Table - **Overview of whether the top ten meat and dairy production companies ABP invests in meet the absolute minimal animal welfare criteria for pigs, chickens and cows and whether they have a protein transition target. X (dark red) means the criterium is not met, V (orange) means the criterium is met, - (grey) means it is not relevant for the company and yellow means it is only partly the case.**

| | Nestlé | China Mengniu Dairy Co LTD | Hormel Foods Corp | JBS SA | Tyson Food Inc | Marfrig Global Foods SA | NH Foods LTD | BRF SA | Muyuan Foods Co LTD | Danone SA |
|---|---|---|---|---|---|---|---|---|---|---|
| Better chicken commitment | V (EU) | - | V | X | X | X | X | X | - | X (V Europe) |
| Ban of gestation crates (sows) | V | - | X | V (UK) | X | X[2] | X | V | X | V |
| Ban of caged egg-laying hens | V | - | V | V | X | V | - | V | - | V |
| Grazing milk cows during grass-growing season | X | X | X | - | - | - | X | X | - | X |
| Meat cattle feed – max 40% grains | | - | X | X | X | X | X | - | - | - |
| 8 hour transportation max | X | X | X | X | X | X | X | X | - | V |
| Slaughter:<br>• Poultry: no electrical water bath method. | V | - | V | X | X | - | X | X | - | X |
| • Hogs: no CO2 gassing. | - | - | X | X | X | X | X | X | - | X |
| • beef/dairy cattle: Electroimmobilisation, casting or rotation of cattle must not be used. | X | X | X | X | X | X | X | X | - | X |
| Protein transition statement | V | X | X | X | X | X | X | X | X | X |

Next to the meat and dairy companies, we identified that out of a set of 40 investments in banks, ABP invest in 30 banks that score zero out of twenty points on the Sinergia Animal Banks for Animals list. Three banks score respectively three, four and eight points and only two banks reach half of the points.

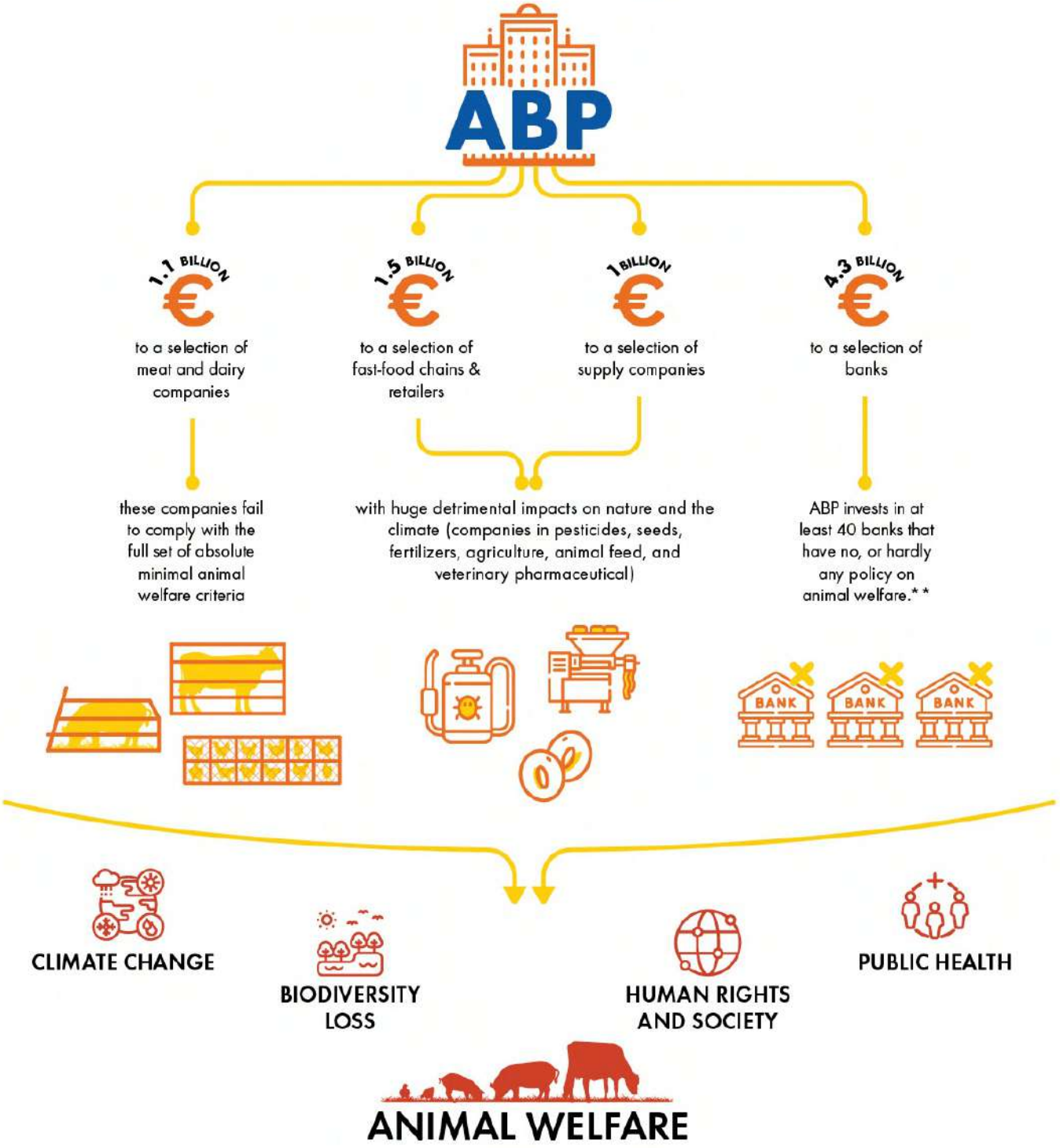
## Conclusions & recommendations

Improving elements of the current industrial model, predominantly based on the production of animal protein, is not enough. The model itself has reached a dead end. And time is running out. The global food system needs immediate transformation. ABP should therefore urgently change from being part of the problem to becoming part of the solution.

ABP should **commit to a transformation of the food system**, including high animal welfare standards, zero tolerance for deforestation and based on a 1.5 degrees scenario aligned with the Paris Climate Agreement. This commitment should entail:

- a commitment to high animal welfare - implementing the FARMS initiative as a minimum
- a shift from animal-based food to more plant-based food – halving current protein production and consumption by 2040; and
- a transition to sustainable, circular agriculture – including phasing out of monocrops like soy as feed for animals.

The report identifies **over 8 billion euros** of direct and indirect investments in **a selection of** companies in the meat and dairy industry*




*The above numbers only represent part of ABP's total investment portfolio.
**https://banksforanimals.org/

# FOREWORD: EATING THE FUTURE

**Without transformative change, the world is heading towards catastrophic climate change and biodiversity loss. In its 2022 report *Mitigation of Climate Change*, the IPCC not only points out that the world is on a pathway to 3,2 degrees Celsius warming, but also that a focus on energy use and supply is not sufficient on its own: agriculture and food systems need to be addressed too. Or, as a 2022 report by J.P. Morgan Chase states, 'Even with the *complete elimination* of fossil fuels, it is likely that greenhouse gas (GHG) emissions from the food system will prevent the world from limiting warming to the 1.5°C target' (italics added).**[1]

Currently, more than a quarter (26%) of global anthropogenic emissions come from food production.[2] A further 5% is caused by non-food agriculture. The agri-food system is responsible for 21%of carbon dioxide emissions, 53 % of methane emissions and 78 % of nitrous oxide emissions.[3]

To make matters even more pressing, this share of GHG emissions from agriculture and food systems is expected to rise. As the World Resource Institute has modelled, agricultural emissions under a business-as-usual scenario (which includes continuous efficiency gains through technological progress) will eat up 70% of the world's carbon budget by 2050 if we want to limit global warming to 2 degrees Celsius. In a business-as-usual scenario without productivity gains (which may be more realistic given the adverse impacts of climate change on agricultural production and the depletion of soils and freshwater sources) agricultural emissions will be almost twice the total of the world's carbon budget by 2050 in a 2 degrees Celsius scenario.[4]

This leaves only one conclusion: to prevent catastrophic climate change, the way humans produce and consume food needs to profoundly transform. Reaching the goals of the Paris Agreement without addressing food emissions is simply impossible. And there are other urgent reasons to look at our food system too. Current food systems have far-reaching negative impacts on biodiversity, human health, workers, local communities and animal welfare. The main culprit: global factory farming and the 'meatification' of global diets.[5]

Conversely, changing the way we produce food can yield tremendous co-benefits for people, animals and the environment. To do so, financial flows must be redirected. Investors and banks keep the current system running. They dominate the allocation of resources within the modern globalized economy and so are bankrolling our current crises. But they can also become part of the solution. Divestment from global factory farming is needed, coupled with investments in sustainable food production and consumption, including agroecology and plant-based alternatives to animal-based products.

ABP is The Netherlands' largest pension fund and the fourth largest in the world. It is the pension fund for people working in the government and education sectors. People contribute to pension funds to guarantee income in the future for when they retire. But what if the money that is set aside is used to invest in companies that make the planet uninhabitable? Pension funds should not only care about return on investments, but also for how these investments shape the world into which people will retire.

In October 2021, ABP took the landmark decision to phase out investments in fossil fuels by 2023. After many years of unsuccessful engagements with fossil fuel companies, this step was long overdue. But it will not be enough to align ABP's investments with the Paris Agreement. For that, ABP urgently needs to fundamentally change its engagement and investments in food.

In its 2020-2025 sustainability vision, ABP has identified sustainable agriculture and food as an important focus. However, this vision is limited to improving business-as-usual by achieving 'efficient and responsible commodity chains.'[6] It does not acknowledge the need for system change. Neither does it contain clear targets. Moreover, there is a shocking gap between ABP's vision and its actual investment portfolio.

This report focusses on ABP's investments in global factory farming. First it outlines why this should be ABP's priority. Second, it maps ABP's billions of euros invested in the production and consumption of industrial meat and dairy. Next, it illustrates the gap between what would constitute a level of minimum responsibility vis-à-vis the policy of the companies ABP is investing in, using a limited set of criteria pertaining to 'less and better animal products.' For a deeper dive, it puts the spotlight on JBS, since this is the biggest meat company in the world – in which ABP invests tens of millions of euros. The report concludes with a series of recommendations for ABP.

Image credit: Jo-Anne McArthur / We Animals Media

# NO FUTURE FOR FACTORY FARMING

**We live in the era of factory farming. Annually, over 80 billion farmed animals are produced for food with an estimated 70% of farmed animals raised and slaughtered within industrialized systems.[7] This includes an estimated 69 billion chickens; 1.5 billion pigs; 656 million turkeys; 574 million sheep; 479 million goats; and 302 million cattle. This global industrial livestock system drives climate change and biodiversity loss, puts human health in jeopardy and causes significant suffering to billions of farmed animals. With a human population that is projected to surpass 9.7 billion people by 2050, these negative impacts will spiral further out of control if their root cause is not addressed. This leaves only one option: global factory farming needs to be curbed and, ultimately, ended.**

## Big meat

Meat production was 470% higher in 2018 than it was 50 years ago, having increased from 70 million metric tons annually to over 330 million metric tons off the back of industrialization. Fish farming also experienced rapid growth during this period, with a 50-fold increase from 2 million metric tons to over 100 million metric tons per year.[8] Industrialization has far outpaced population growth: within this same period, the global population doubled.

The industrial production of animals has become more and more concentrated in the hands of a limited number of multinational companies. For example, in the USA, only four companies - JBS, Tyson, Cargill and Marfrig - control 85 % of the beef market. Furthermore, JBS, Tyson and Hormel account for 66 % of the pork market and more than half of the chicken meat market is controlled by Tyson, JBS, Sanderson Farms and Purdue.[9]

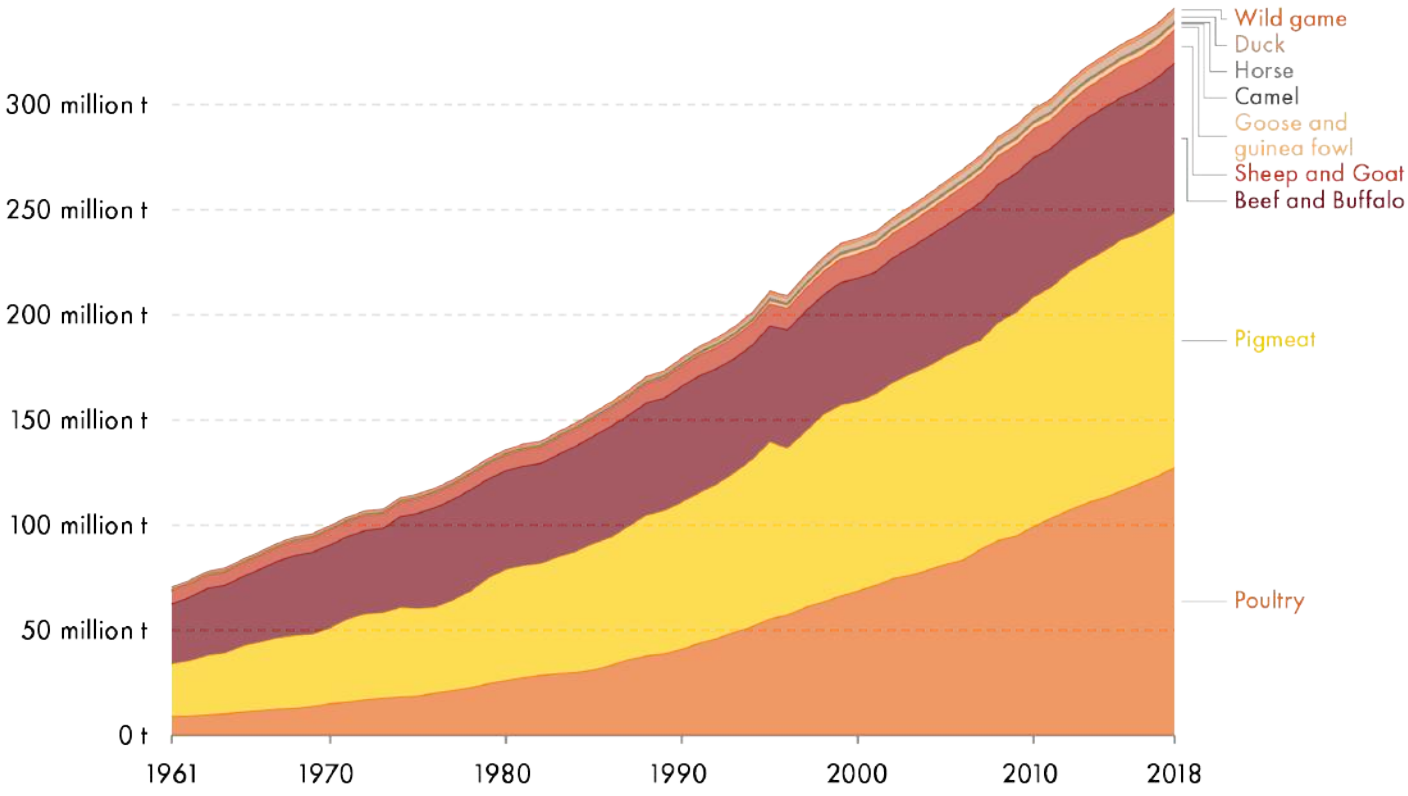



Figure 1 - Global meat production by livestock type 1961 – 2018[10].

Industrial livestock systems are replacing traditional forms of livestock production in many low- and middle-income countries (LMICs). This has a direct impact on livelihoods: the UN estimates that livestock contributes to the livelihoods of about 1.7 billion poor people and 70% of those employed in the sector are women.[10] Traditional and nature friendly forms of animal husbandry (e.g., pastoral or agropastoral systems) provide people in LMICs an important source of nutrients, family income, transport, fuel, and fertilizer inputs (manure) for crop production on mixed farms. As a result, the sector plays a major part in reducing poverty, improving resilience as well as combating food insecurity and malnutrition. Industrial farming, however, pushes smallholders out of their livelihoods and into urban slums.

## Climate change

Currently, 26% of global anthropogenic emissions come from food production. A further 5% is caused by non-food agriculture. The agri-food system is responsible for 21% of carbon dioxide emissions, 53% of methane emissions and 78% of nitrous oxide emissions.[11] Animal production accounts disproportionally for these emissions. A 2018 study calculated that while animal production provides just 18% of calories and 37% of protein, it produces 58% of agriculture's GHG emissions.[12] Other studies put livestock's contribution to all agriculture's GHG even higher, at nearly 80%.[13]

This share of GHG emissions from agriculture and food systems is expected to rise. As the World Resource Institute has modelled, agricultural emissions under a business-as-usual scenario (which includes continuous efficiency gains through technological progress) will eat up 70% of the world's carbon budget by 2050 in a scenario of limiting global warming to 2 degrees Celsius. In a business-as-usual scenario without productivity gains – which may be more realistic given the adverse impacts of climate change on agricultural production and the depletion of soil and fresh water sources – agricultural emissions will be almost twice the total of the world's carbon budget by 2050 in a 2 degrees Celsius scenario.[14] For the goal to limit global warming to 1.5 degrees Celsius, these figures are even more daunting: in 2050, net zero emissions for all sectors need to be achieved.

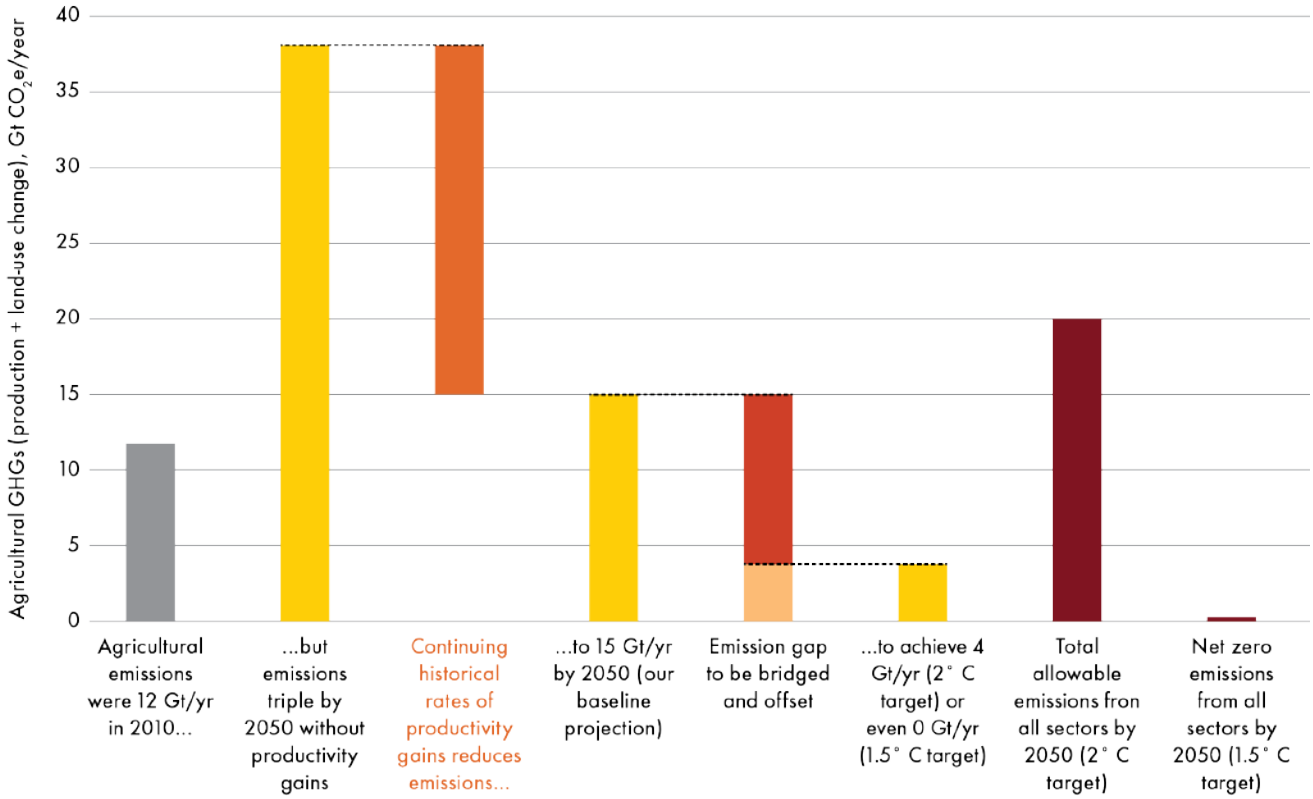



Figure 2 - The emissions mitigation gap for agriculture. Adapted from World Resources Report – Creating a sustainable food future (2019)[14].

Livestock's GHG emissions are mainly caused by land-use change to graze cattle and grow feed crops, the production and use of fertilizers and pesticides (for feed crop production), enteric fermentation and manure disposal. A study by GRAIN and IATP estimated that the world's top five meat and dairy corporations together are responsible for more annual GHG emissions than ExxonMobil, Shell or BP.[15]

## Biodiversity loss

Besides its contribution to climate change, global industrial livestock production is also a major direct driver for biodiversity loss through other mechanisms. First, through deforestation and (indirect) land-use change for farmlands, which reduces and fragments wildlife habitats – with detrimental impacts on biodiversity. Animal production uses 77-83% of all farmlands, for grazing and growing feed crops. This means that more than a quarter (27%) of the total land area on earth is used for livestock production.[16]

Moreover, animal feed production – mainly monoculture soy and maize - is heavily reliant on pesticides. The devastation caused by such pesticides was highlighted by a 2019 case where 500 million honeybees in Brazil died because of the insecticide fipronil (prohibited in the EU) that had been used on soy plantations.[17] Pesticides do not just negatively affect pollinators and the ecosystems that depend on them, they also leak into waterways poisoning fish and other aquatic animals. The same holds true for veterinary medicines (antibiotics, vaccines, and growth promoters), which move from farms through water to ecosystems and drinking water sources.

To make matters worse, nitrogen and phosphates from fertilizers and animal manure have detrimental impacts on nature. Excess nitrogen and phosphates seep into waterways, resulting in algae blooms. Their decomposition process consumes oxygen and suffocate aquatic life, resulting in dead zones.[18] For example, the dead zone in the Gulf of Mexico, created by runoff from manure and other agricultural fertilizer in the Mississippi floodplain, is now more than 6,300 square miles. The extra nitrogen produced by industrial farming affects the land too –it is threatening plant diversity in China and in temperate and northern parts of Europe.[19] In the Netherlands, nitrogen emissions exceeding legal thresholds have resulted in a crisis not just of nature, but also impacting building projects and farmers.[20]

**Image:** Giant anteaterwalks through burnt grassland area, Emas NP, Brazil. Credit: Luiz Claudio Marigo / naturepl.com

# SPOTLIGHT ON THE AMAZON AND CERRADO

The Amazon rainforest is our planet's most diverse and most extensive rainforest. At least one in 10 of every known plant and animal species is found in the Amazon. It is also home to many indigenous peoples and other local communities, who depend on the forests and waterways for their way of living and often act as nature's guardians. South of the Amazon is another vital, but lesser-known, biome, the Cerrado. This is the world's most ancient and biodiverse forest savanna, representing 5% of the world's plant and animal species. Like the Amazon, the Cerrado is also important for storing carbon and for South America's water systems.[21] Both the Amazon and Cerrado are under threat – the threats of deforestation and degradation.

Beef is the key driver of the Brazilian Amazon's deforestation. Converting land to cattle farms is responsible for 70-80% of the destruction. Deforestation in the Cerrado is largely driven by soy production for animal feed, with beef playing a smaller role. But like in the Amazon, cropland is often created in a two-step process: forests are cut and burned to create pasture; then over time these grazing lands are converted to soy fields.

Deforestation for soy in the Amazon has decreased since 2005–2006 after international attention and pressure from NGOs led to the acclaimed Amazon Soy Moratorium. Notwithstanding its tremendous importance, its success has not been clear-cut. It has pushed soy to the Cerrado, and cattle farming from the Cerrado to the north into new forest areas. Moreover, the Moratorium has not fully stopped deforestation for soy and related infrastructure in the Amazon. Soy producers clearing forests for purposes other than growing soy – to use as pasture or for other crops – are technically compliant with the Moratorium. This represents a major loophole in the Moratorium.[22]

Researchers believe that if just 20–25% of the rainforest were cut down, it could reach a tipping point at which eastern, southern and central Amazonia would flip to a savannah-like ecosystem. Reaching this tipping point would add billions of metric tons of carbon to the atmosphere. It would also affect the regional climate and rainfall patterns of South America, posing long-term risks for agriculture in most parts of the continent. With deforestation in the Amazon increasing in recent years, this tipping point is dangerously close.[23]

Companies (and their investors) typically respond to deforestation risks in the Amazon and Cerrado by trying to improve business-as-usual, rather than addressing the root cause of the deforestation: meat production and consumption. They do so by turning to sourcing soy from accredited schemes. The most prominent example is soy certified by the Roundtable on Responsible Soy (RTRS). But unfortunately, the RTRS zero deforestation requirements are largely rendered immaterial by the scheme's set up: it uses a 'credit' system where soy can be purchased from non-certified producers. This includes the use of soy produced on legally and illegally deforested land. Although RTRS credits do encourage better production methods on certified farms – which is clearly important - claims about using only 'deforestation-free soy' unconditionally based on RTRS credits are misleading at best.[24]

Conservative estimates show that 20% of the EU's imported soy from the Amazon and Cerrado may be linked with illegal deforestation. If legal deforestation is considered, this number would be even higher.[25]

Image: Bird of prey flying over fires, during the peak of the dry season, Chapada dos Veadeiros National Park, Cerrado region, Goias, Brazil. Credit: Angelo Gandolfi / Alamy Stock Photo

## Public health[26]

Industrial livestock systems lead to unhealthy diets and food insecurity and therefore contribute to malnutrition in all its forms (among others obesity, overweight and diet related non-communicable diseases and undernutrition related illnesses). An increase in the availability of inexpensive high calorie livestock derived food has often displaced a diversity of more traditional, local, nutritious, and healthier foods within many parts of the world.

The overconsumption of meat has been linked with increased risks of diseases such as coronary heart disease and several forms of cancer, and an increasing body of literature shows that more plant-based eating is associated with benefits for health. Long-term consumption of increasing amounts of red meat - particularly of processed meat - is associated with an increased risk of total mortality, cardiovascular disease, colorectal cancer, and type 2 diabetes.

The use of crops and arable land for intensive livestock production indirectly places rich meat and dairy consumers in competition for calories with those who need them most. Continuing along the path of livestock industrialization and the westernization of human diets will have dramatic consequences on land use globally which will make food security more challenging in areas that are already food insecure, including parts of Africa, Asia, and Latin America. Food security risks are further compounded by the heavy use of water by global industrial farming, which depletes fresh water sources in some regions.

The heavy use of pesticides for feed crops not only represents a threat to biodiversity, but also to human health. Farmworkers are particularly susceptible to exposure, encountering pesticides when spraying fields, inhaling pesticide 'drift' and exposing their families and local communities via contamination of groundwater or on their clothing. 16,000 USA deaths occurred as a result of air polluted by growing and raising food–and 80% of those result from producing animal products like meat, dairy, and eggs both directly from animal production and indirectly from the production of feed.[27] Many pesticides contain endocrine-disrupting chemicals (EDCs), that mimic or interfere with the body's hormones.

Global industrial animal production also carries significant epidemic and pandemic risks. Land-use change for grazing and feed production disrupts ecosystems, elevating the risks of pathogens jumping from animals to humans. Moreover, the high numbers of densely packed animals with low genetic variation in factory farming enable rapid and massive amplification of viruses and other pathogens. Pigs and poultry are considered to be particularly important reservoirs of pathogens with pandemic potential, together with wild animals like bats, rodents and water birds. Furthermore, the stress the animals endure increases pathogen shedding, especially during transport and on arrival at slaughterhouses.[28]

The heavy use of antibiotics in factory farming exacerbates these risks since it is creating antimicrobial resistance (AMR). A large number of COVID-19 deaths have been associated with secondary infections, highlighting how AMR can amplify pandemic impacts. About 75% of all antibiotics are used in factory farms. Already an estimated 1.2 million people die annually through AMR infections, and this number is projected to further rise.[29] If not addressed, it is estimated that by 2050 AMR infections will be the leading cause of death globally with a total economic cost of USD 100 trillion, with the overwhelming burden placed on low and middle-income countries.[30]

## Human rights and occupational safety

Meat slaughtering, processing, and packaging plants are often labor-intensive. Although modern plants have made ergonomic improvements over the years, repetitive strain injuries are common, as are cuts, slips and falls. Due to the intensification of work, a growing number of workers now suffer from new occupational diseases, such as musculoskeletal disorders and from psychosocial factors at work (the most common being work-related stress). Workers, particularly in poultry plants, are also exposed to irritating chemicals that can cause chronic respiratory and other health issues. As a Human Rights Watch report concluded about the American meat industry, 'systematic human rights violations [are] embedded in meat and poultry industry employment.'[31]

Job insecurity, poor wages and long working hours have become the norm for many meat workers. A recent investigation uncovered that Europe's meat companies have been hiring thousands of workers through subcontractors, agencies and bogus co-operatives. These workers suffer inferior pay and poor working conditions. The meat industry has become a global hotspot for outsourced labor, many of whom are migrants, with some earning 40% to 50% less than directly employed staff in the same factories. In the Netherlands, one of Europe's largest meat exporting countries, the labor inspectorate said migrants, primarily on precarious contracts, make up to 90% of the workforce.[32]

Even more egregious circumstances can be found upstream in the supply chain. A prominent case in point pertains to deforestation in the Brazilian Amazon. This deforestation is mostly illegal and often accompanied by other law violations. Logging and forest conversion or infrastructural projects often lead to disputes over land tenure, land grabbing, threats and violence. Members of traditional communities are dependent on the forests and rivers where they live. Consequently, they tend to oppose deforestation which makes them targets for violence and even murder. Such incidences have been regularly reported by the Amazon's Indigenous Council and the Pastoral Land Commission (CPT). These human rights violations are exacerbated by widespread corruption, fraud and a poor land registry system.

In Brazil, the latter is exemplified by the CAR, the Rural Environmental Cadaster, required for every land user. Many CARs are registered in the names of large landholders, such as cattle and soy farmers. However, the CAR is only a land claim, not a land title or a document of land ownership. As the Federal Prosecutor's Office (MPF) warned, CARs are used to commit environmental crimes and grab indigenous land. According to research published in 2020, more than 11million hectares of public land in the Brazilian Amazon was illegally registered as private land within the CAR system. In total, 2.6 million hectares of this land was already illegally deforested by 2018. Still, companies (and their financers and investors) often only require a CAR, and so land grabbing remains a big risk within their supply chains.[33]

Brazil's history of legitimising illegal land occupation further compounds the problem of unlawful land ownership. The 2012 Forest Act included an amnesty for much of the illegal deforestation that took place before 2009. And because the agricultural lobby is the most powerful lobby in Brazilian politics, agribusinesses (and their investors like ABP) may have reason to believe laws will again change to serve their commercial interests. Current land grabbing may be pardoned and legalized in the future, much to the detriment of the planet and its current and future inhabitants.

## Animal welfare

Factory farming is responsible for a host of animal welfare problems that inflict pain, stress and appalling suffering on tens of billions of animals annually. They endure intensely cruel, overcrowded confinement that does not accommodate or respect their natural behaviors. Painful mutilations, early weaning, poor air quality, unnatural feeding regimes, rough handling, long distance transport, and inhumane slaughter methods are the norm. Animals suffer from stress, boredom, injuries, ailments, hunger, and social deprivation. And within industrial systems safety measures to protect animals from calamities (such as failing ventilation systems, fires, extreme weather events) are often inadequate or completely lacking.

Animals in industrial livestock production are genetically selected to grow fast, have large litters, lay high numbers of eggs or produce a maximum amount of milk. Meat chickens, known as broilers in the industry, are a prime example. For decades, genetic selection of meat chickens has focused on improving feeding efficiency, weight gain, and breast muscle size. Today's broilers can reach their slaughter weight in just 35-42 days. This excessive fast growth has hugely compromised their welfare. Fast-growing birds often experience leg deformities, skeletal defects, skin problems, and reduced mobility.[34]

**Image:** Modern chicken farm for the breeding of white chickens and eggs, multi-level conveyor, indoor, copy space. Credit: HENADZY / Adobe Stock

## MITIGATING MEAT CHICKEN WELFARE RISKS

To mitigate animal welfare risks in livestock production, the FARMS initiative (www.farms-initiative.com) has set responsible minimum standards for the most commonly farmed species. For meat chickens, these correspond with the 'Better Chicken Commitment' and encourage the progressive implementation of:

- breeds that demonstrate higher welfare outcomes, including the Hubbard Redbro (indoor use only), Hubbard Norfolk Black, JA757, JACY57, 787, 957, or 987, Rambler Ranger, Ranger Classic, and Ranger Gold, or others that meet the criteria of the UK's Royal Society for the Prevention of Cruelty to Animals' Broiler Breed Welfare Assessment Protocol;
- a maximum stocking density of 30kg/m2 or less. Thinning is discouraged and if practised must be limited to one thin per flock;
- no cages or multi-tiered systems for either broilers or broiler breeders;
- at least 2m of usable perch space and two pecking substrates per 1,000 birds;
- at least 50 lux of light, including natural light;
- on air quality, the concentration of ammonia (NH3) must not exceed 20 ppm and the concentration of carbon dioxide ($CO^2$) must not exceed 3,000 ppm measured at the level of the chickens' heads;
- controlled atmospheric stunning using inert gas or multi-phase systems, or effective electrical stunning without live inversion;
- compliance with the above standards via annual third-party auditing and annual public reporting on progress towards this commitment.

### The role of financial institutions

All of the aforementioned impacts of global industrial livestock production are powered by financial institutions. Investors and banks keep the current system running. They direct money flows towards factory farms, towards the production and trade of soy and maize for animal feed, towards the manufacturing of pesticides and fertilizers, towards meat and dairy processors, and towards retailers and fast-food companies that promote the meatification of diets. In short, they dominate the allocation of resources within the modern globalized economy and so are bankrolling our current crises.

Conversely, transforming agriculture and food systems can yield tremendous co-benefits for people, animals and the environment. To do so, financial flows must be redirected. As such, investors and financers can also become part of the solution: they can – and must - help transform our global food system. Divestment from global factory farming is needed, coupled with investments in sustainable food production and consumption, including agroecology and plant-based alternatives to animal-based products.

Image credit: Lukas Vincour / Zvířata Nejíme / We Animals Media

# MAPPING ABP'S INVESTMENTS IN THE GLOBAL INDUSTRIAL LIVESTOCK COMPLEX

**This chapter maps ABP's investments in the global industrial livestock complex, through which it exacerbates climate change, biodiversity loss, public health risks and, often overlooked, global farm animal cruelty on a massive scale. Financial links with this industry are manifold and are sometimes hard to trace. The most clear-cut investments are investments in meat and dairy companies. Other obvious examples are investments in food manufacturers, multinational retailers and fast-food companies that fuel the excessive consumption of factory farmed animal products – meat, dairy, eggs, and fish.**

But there are still other, less well-known companies that are at the core of the global industrial livestock complex. These provide the inputs for factory farming: pesticides, fertilizers and (GMO) seeds for animal feed production, animal feed traders and sellers, and big pharma companies producing veterinary products that prop up industrial livestock production like antibiotics, fertility drugs and vaccines. However, it does not end there. Investments in the global industrial livestock complex also pertain to investments in financial institutions that provide finance, insurance and investments to the companies mentioned above.

Obviously, the circle can be further widened to include the building companies that build the animal feed ports, the slaughter plants and the factory farms or the companies that ship and transport feed, animal products and live animals – and so on. For this mapping however, we focus on four categories: meat and dairy companies, retailers and fast-food companies, supply companies and financial institutions.

### MEAT AND DAIRY PRODUCERS

Meat producers (JBS, Tyson etc.)

Dairy producers (FrieslandCampina, Nestlé etc.)

### RETAILERS & FAST-FOOD COMPANIES

Supermarket chains such as Costco, Amazon, etc.

Fast-food companies such as McDonalds, Starbucks.

### SUPPLY COMPANIES

Pesticides.

GMO seeds.

Fertilizer companies.

Big pharmas.

Animal feed companies.

### FINANCIAL SECTOR

Banks.

Asset managers.

Insurance companies and other financials (not assessed).

Figure 3 - **Overview of the sectors and companies assessed.**

To be efficient, we chose a slightly different approach in assessing the involvement of ABP for the primary topic of our research – the meat and dairy producers, and the other sectors. For the meat and dairy producers, we looked at the ten biggest investments of ABP in these companies. For the other sectors we looked at the five biggest publicly listed companies in the industry and the financial involvement of ABP in these companies. Given these limitations, the overall magnitude of ABP's investments in the global meat and dairy complex is likely to be significantly larger than that quantified in this study. The methodology is further outlined in the appendix.

## Meat and dairy producers

Investments in meat and dairy producers illustrate the most direct link between flows of money into factory farming – and its impacts on climate change, biodiversity, public health and animal welfare. To assess how ABP is involved in the meat and dairy production, we looked at their ten largest investments in companies in this sector. In total, ABP invests in 48 meat and dairy companies. As shown in Table 1, ABP's ten biggest investments add up to 1.2 billion euros. In total, investments in this sector total over 1.5 billion euros.

**Table 1 - Overview of the ten public dairy and meat production companies ABP has the biggest financial involvement in.**

| Name | ABP investment value (in mln €) | World market leader ranking* |
|---|---|---|
| Nestle SA | € 769 | #1 dairy |
| China Mengniu Dairy Co Ltd | € 128 | #7 dairy |
| Hormel Foods Corp | € 123 | #8 meat |
| JBS SA | € 68 | #1 meat |
| Tyson Foods Inc | € 29 | #2 meat |
| Marfrig Global Foods SA | € 20 | #6 meat |
| NH Foods Ltd | € 18 | #7 meat (2018) |
| Muyuan Foods Co LTD | € 10 | #1 pork |
| BRF SA | € 5 | #10 meat |
| Danone SA | € 5 | #4 dairy |
| **Total** | **€ 1,175** | |

*Based on: https://eu.boell.org/en/2021/09/07/companies-dominating-market-farm-display-case

The aforementioned companies will be further assessed on their animal welfare policies in the next chapter.

### Retailers and fast-food chains

Retailers and fast-food chains make up the next step in the value chain from meat production to consumers. These companies have the power to choose the products they buy and the companies they support, and thereby also influence which products a consumer can choose.

ABP is invested in 42 retailing companies for over 1.7 billion dollars and nine fast-food chains for more than 1.1 billion dollars. ABP has investments in three of the five biggest retailing companies selling factory farmed products. These investments total 695 million euros.

**Table 2 - Overview of the five biggest public retailers worldwide and the financial involvement of ABP. (The number 2, Amazon.com, was left out due to their relatively small amount of turnover from animal products compared to their total turnover)**

| Name | ABP investment value (in mln €) | Country | World market leader ranking* |
|---|---|---|---|
| Walmart | € - | United States | 1 |
| Costco Wholesale Corp | € 550 | United States | 3 |
| Ahold Delhaize | € 140 | Netherlands | 4 |
| Carrefour | € 5 (SA) | France | 5 |
| IKEA | € - | Sweden | 6 |
| **Total** | **€ 695** | | |

*Based on: https://www.supermarketnews.com/retail-financial/top-50-food-and-grocery-retailers-sales

ABP invests in all five of the biggest fast-food companies involved in the meat and dairy industry. These investments total 952 million euros.

**Table 3 - Overview of the five biggest public fast-food companies worldwide and the financial involvement of ABP.**

| Name | ABP investment value (in mln €) | Country | World market leader ranking* |
|---|---|---|---|
| McDonald's Corp | € 554 | United States | 1 |
| Starbucks Corp | € 322 | United States | 2 |
| Restaurant Brands International Inc. | € 1 | Canada | 3 |
| YUM! Brands, Inc | € 38 | United States | 4 |
| Yum China Holdings Inc | € 37 | China | 5 |
| **Total** | **€ 952** | | |

*Based on: https://www.forbes.com/sites/suzannerowankelleher/2022/05/09/worlds-largest-hotel-restaurant-and-leisure-companies-in-2022/?sh=2809e50be6a6

**Image:** Tractor spraying corn field.
Credit: Dusan Kostic / Adobe Stock

## Supply companies

About one third of the world's arable land is used to grow crops for animal feed, mainly in monocultures of soy and maize. For this, GMO seeds, pesticides and fertilizers are used. These are predominantly produced and sold by only a few multinational companies. Moreover, factory farming is reliant on veterinary products like antibiotics, fertility products and vaccines. For example, pharmaceutical companies make about 5 billion dollars a year from producing antibiotics for farm animals. All of this supports the ongoing expansion of industrial livestock production.

ABP invests in four of the five biggest pesticide companies related to animal farming. These investments total 136 million euros.

**Table 4 - ABP investments in the five biggest public pesticide companies.**

| Name | ABP investment value (in mln €) | Country | World market leader ranking* |
|---|---|---|---|
| BASF SE | € 61.00 | Germany | 1 |
| Bayer AG | € 10.00 | Germany | 2 |
| Sumitomo Chemicals | € 23.00 | Japan | 3 |
| Syngenta | € - | Switzerland | 4 |
| Corteva | € 42.00 | United States | 5 |
| **Total** | **€ 136** | | |

*Based on: https://finance.yahoo.com/news/12-biggest-pesticide-companies-world-174753064.html

ABP invests in three of the five biggest seeds companies related to animal farming. These are partly the same companies as mentioned under pesticide investments. Therefore the extra amount invested equals 27 million euros, the investments in Yuan Longping High-tech Agriculture Co Ltd.

**Table 5 - ABP investments in the five biggest public seed companies.**

| Name | ABP investment value (in mln €) | Country | World market leader ranking* |
|---|---|---|---|
| BASF SE** | € 61 | Germany | 1 |
| Bayer AG** | € 10 | Germany | 2 |
| Syngenta** | € - | Switzerland | 3 |
| Corteva** | € 42 | United States | 4 |
| Yuan Longping High-tech Agriculture Co Ltd | € 27 | China | 5 |
| **Total (minus **)** | **€ 27** | | |

*Based on: https://www.imarcgroup.com/top-key-players-global-seeds-market

** Listed in a previous table and therefore subtracted from the total here.

ABP invests in three of the five biggest fertilizer companies related to industrial animal production. These investments total a 141 million euros.

**Table 6 - ABP investments in the five biggest public fertilizer companies.**

| Name | ABP investment value (in mln €) | Country | World market leader ranking* |
|---|---|---|---|
| Westfarmers | € 8 | Australia | 1 |
| Nutrien Ltd | € 105 | Canada | 2 |
| Saudi Arabian Fertilizer Company | € - | Saudi Arabia | 3 |
| CF Industries Holdings Inc | € 28 | United States | 4 |
| Israel Chemicals | € - | Israel | 5 |
| **Total** | **€ 141** | | |

*Based on: https://www.statista.com/statistics/1290764/leading-fertilizer-companies-worldwide-market-capitalization/

ABP is invested in two of the five biggest agricultural commodity trading companies. These investments total 72 million euros.

**Table 7 - ABP investments in the five biggest public agriculture companies.**

| Name | ABP investment value (in mln €) | Country | World market leader ranking |
|---|---|---|---|
| ADM | € - | United States | 1 |
| Bunge | € 1 | United States | 2 |
| Glencore | € - | Switzerland | 3 |
| DuPont | € 71 | United States | 4 |
| Wilmar | € - | Singapore | 5 |
| **Total** | **€ 72** | | |

ABP invests in two of the five biggest animal feed companies. The investments total 15 million euros, but since these companies were listed before, these investments were already covered in earlier tables.

**Table 8 - ABP investments in the five biggest public animal feed companies.**

| Name | ABP investment value (in mln €) | Country | World market leader ranking* |
|---|---|---|---|
| New Hope Liuhe Co. Ltd. | € - | China | 1 |
| BRF SA** | € 5 | Brazil | 2 |
| Muyuan Foods Co LTD** | € 10 | China | 3 |
| ForFarmers | € - | Netherlands | 4 |
| Charoen Pokphand Group | € - | Thailand | 5 |
| **Total (minus **)** | **€ -** | | |

*Based on https://www.verifiedmarketresearch.com/blog/worlds-top-animal-feed-companies/

**Listed in a previous table and therefore subtracted from the total here.

ABP invests in four of the five biggest public veterinary pharmaceutical companies. These investments total 562 million euros.

**Table 9 - ABP investments in the five biggest public veterinary pharmaceutical companies.**

| Name | ABP investment value (in mln €) | Country | World market leader ranking* |
|---|---|---|---|
| Zoetis | € 137 | United States | 1 |
| Merck & Co Inc | € 402 | United States | 2 |
| Covetrus | € - | United States | 3 |
| Elanco Animal Health Inc | € 23 | United States | 4 |
| IDEXX Laboraties Inc | € 112 | United States | 5 |
| **Total** | **€ 674** | | |

*Based on https://pharmashots.com/6660/top-20-animal-health-companies-of-2020-by-total-revenue

**Image:** The fast-food chain uses fast-growing breeds of chicken which suffer from terrible health problems, including deformed legs and hearts and lungs that struggle to keep up. In addition, chickens are kept in cramped conditions in a space less than an A4 piece of paper. Credit: DuxX / iStock

## Financial institutions

The number of investments by ABP in the financial sector linked to the global industrial livestock complex are immense. It is therefore beyond the scope of this report to assess all these banks, insurance companies and other financials and their links to livestock producers, meat processors, retailers, fast-food chains and supply companies. Fortunately, an animal welfare ranking list for the banking sector exists which provides a good proxy to assess ABP's investment portfolio.

We used the Sinergia Banks for Animals ranking list to map the banks ABP is invested in. This does not mean that other banks or financial institutions do not have links with industrial livestock production, it simply means they were not assessed through this benchmark. In the next chapter, we look at their scores for farm animal welfare/protein transition. Of the 69 banks present on the Banks for Animals ranking list, ABP invests in 40 banks for a total of 4.3 billion euros (Table 10 on page 20). The animal welfare policy scores of these banks are further listed in the next chapter.

Table 10 - **Review of the banks on the Banks for Animals list ABP is invested in.**

| Name | ABP investment value (in mln €) | Country |
|---|---|---|
| JPMorgan Chase & Co | € 779 | United States |
| Bank of America Corp | € 514 | United States |
| Wells Fargo Bank NA | € 366 | United States |
| Toronto Dominion Bank | € 313 | Canada |
| BlackRock Inc | € 256 | United States |
| Banco Bradesco SA | € 206 | Brazil |
| DBS Group Holdings Ltd | € 205 | Singapore |
| Bank Rakyat Indonesia Persero Tbk PT | € 180 | Indonesia |
| Bank Mandiri Persero Tbk PT | € 157 | Indonesia |
| Citigroup Inc | € 98 | United States |
| Bank of China - Luxembourg Branch | € 96 | China |
| National Australia Bank Ltd | € 87 | Australia |
| Royal Bank of Canada | € 81 | Canada |
| Barclays PLC | € 81 | United Kingdom |
| Itau Unibanco Holding SA | € 80 | Brazil |
| Mizuho Financial Group Inc | € 71 | Japan |
| Goldman Sachs Group Inc/The | € 62 | United States |
| BNP Paribas SA | € 59 | France |
| Bancolombia SA | € 55 | Colombia |
| United Overseas Bank Ltd | € 54 | Singapore |
| Banco Santander SA | € 50 | Spain |
| Westpac Banking Corp | € 50 | Australia |
| The Bank of New York Mellon Corporation | € 47 | United States |
| UBS Group AG | € 43 | Switzerland |
| Bank of Nova Scotia/The | € 40 | Canada |
| HSBC Holdings PLC | € 38 | United Kingdom |
| Kasikornbank PCL | € 38 | Thailand |
| Morgan Stanley | € 30 | United States |
| Deutsche Bank AG | € 26 | Germany |
| Standard Chartered PLC | € 26 | United Kingdom |
| Bank Negara Indonesia Persero Tbk PT | € 24 | Indonesia |
| Siam Commercial Bank PCL/The | € 22 | Thailand |
| Natwest Group PLC | € 20 | United Kingdom |
| Banco de Chile | € 16 | Chile |
| Banco do Brasil SA | € 14 | Brazil |
| Krung Thai Bank PCL | € 10 | Thailand |
| Credit Agricole SA | € 8 | France |
| Credit Suisse Group AG | € 6 | Switzerland |
| ING Groep NV | € 2 | Nederland |
| Banco de Credito e Inversiones SA | € 2 | Chile |
| **Total** | **€ 4,312** | |

*NB: Note that BlackRock is not a bank, but a multinational investment management corporation. In fact, it is the biggest asset manager in the world – with assets under management totalling more than Brazil's entire GDP. BlackRock is the biggest investor in meat and dairy companies with assets under management worth more than 27 billion dollars.*[35]

To provide an idea of the scale of finance flowing to meat and dairy companies, Figure 4 provides an overview of the 15 biggest creditors. ABP has investments in all but two of them.

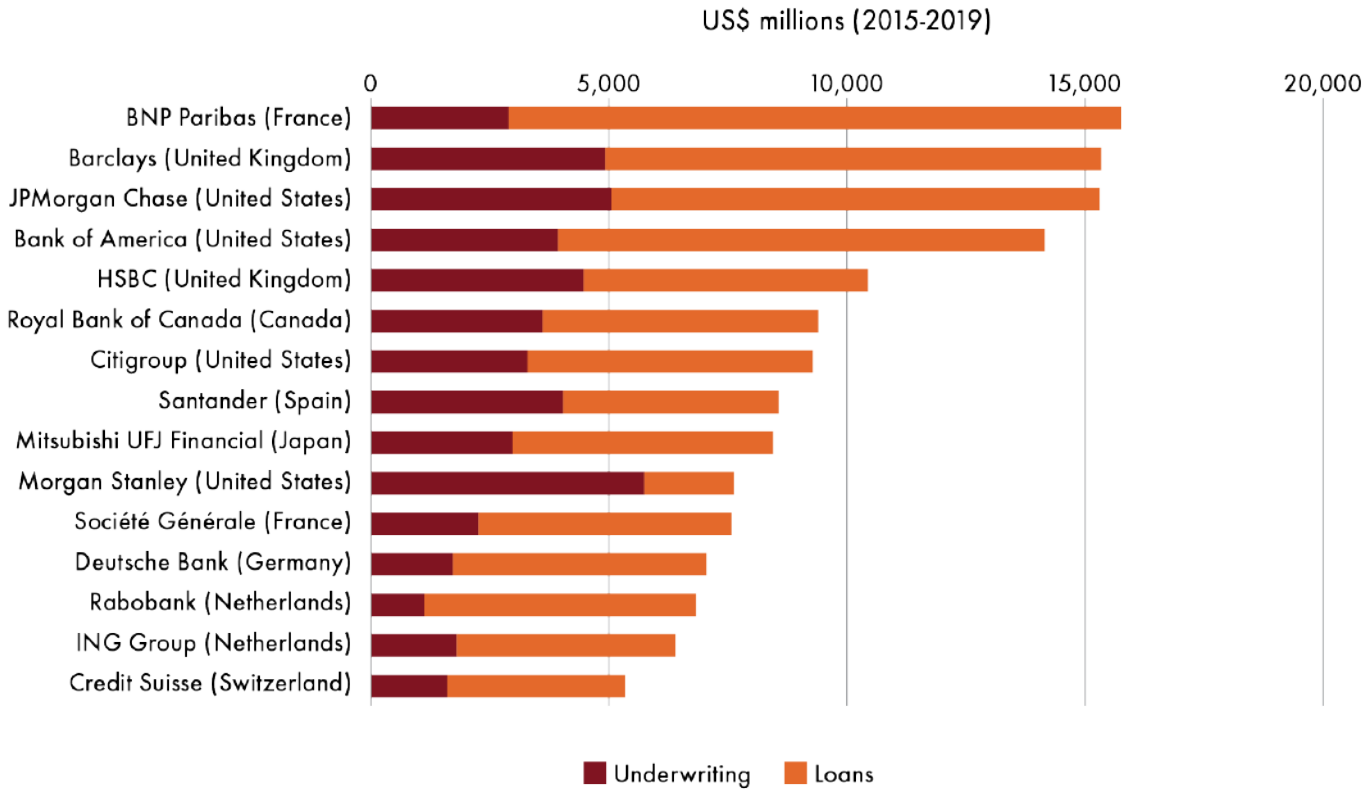



Figure 4 - **The biggest creditors to meat and dairy companies. Based on IATP/Feedback/Desmog (2022)**

## Conclusion

This chapter mapped ABP's investments in the global industrial livestock complex. In total, the identified investments add up to over 8.1 billion euros – 1.1 billion euros for meat and dairy companies, 1.6 billion euros for retailers and fast-food companies, 1 billion euros for supply companies, and 4.3 billion euros for financial institutions linked to animal farming, the vast majority of which are factory farmed. However, given the limitations of the mapping, the overall magnitude of ABP's investments in the global meat and dairy complex is likely to be significantly larger than that quantified in this study.

Image: Brazilian Amazon burning. Credit: pedarilhos / Adobe Stock

# ABP'S FAILING POLICY

**To contribute to the necessary transition away from global factory farming, ABP should redirect mainstream investments (so called 'grey' investments) toward activities with positive outcomes ('green' investments). Currently, green investments are regrettably only a small fraction of the grey investment flows. This is the result of the lack of ambitious and positive policies – and because of gaps between policies and actual implementation. As the IPCC in its 2022 report notes, policy coverage remains limited for emissions from agriculture.[36] This is certainly true for ABP.**

Given that ABP is the pension fund for the government sector, it is apt to first consider to what extent its vision and policy is aligned with the Dutch government. Next, this chapter looks into policies of some core companies ABP invests in, focusing on the often-overlooked issue of farm animal welfare and the urgent need for a protein transition. Finally, it provides the farm animal welfare scores of banks ABP is invested in.

### The Dutch state vis-à-vis ABP

The Dutch government is committed to the transition to a sustainable and humane food system. In 2018, it launched its vison for circular agriculture. This vision calls for fundamental change. It states that the government's goal is 'for cycles of raw materials and resources *to be closed at the lowest possible level*, either nationally or internationally, by 2030'[37] (italics added). Closing cycles at the lowest level implies that crops should be grown to feed people, not livestock. In addition, it calls for the geographic shortening of cycles through the motto 'do it locally if you can, and regionally or internationally if you have to.' This means that if crops to feed livestock are still used, they should be grown locally – or if needed regionally. But growing feed crops in other continents has no place in such a vision. The transition to circular farming entails 'livestock farmers increasingly using feed that they have grown themselves or have purchased from preferably local or regional producers. They will also use increasing amounts of waste products and by-products from the human food industry.'[38]

Moreover, in 2022 the government set a target for reducing animal protein consumption. By 2030, the Dutch population should have shifted its diet to a 50-50% intake of animal versus plant proteins (currently: 60-40). This is a step on the road to a further decrease in animal protein consumption. Minister Staghouwer stated that one of the benefits of this would be the reduction of imported animal feed from outside Europe.[39]

Within the European Union, The Netherlands is an advocate for better and more comprehensive farm animal welfare legislation. In its 2020 government agreement it committed to a pathway towards a 'animal dignified livestock sector'. At EU level, the European Commission has announced the plan to phase out cages in European livestock farming and review and improve current animal welfare legislation. The Netherlands is a strong supporter of this move.

These ambitions and objectives at national and European level form a stark contrast with ABP. The pension fund of the Dutch government and education sector falls spectacularly short. In its 2020-2025 sustainability vision, ABP has identified sustainable agriculture and food as an important focus. However, this vision is limited to improving business-as-usual by achieving 'efficient and responsible commodity chains'. Unlike the Dutch government, ABP does not seem to acknowledge the need for food system change. Neither does it set any clear targets.[40]

In its 'factsheet' on land-use, ABP formulates three 'demands' towards food companies:

- Countering deforestation
- Decreasing CO2 footprint
- Decreasing food waste

But none of these 'demands' are concrete, let alone ambitious.[41] For example, deforestation needs to be stopped and reversed, not just countered. Finally, in ABP's 'factsheet' on circular economy, agriculture and food are notably absent.[42]

In its annual report 2021, ABP boasts about its involvement in several initiatives and its engagement with companies. However, it is questionable what they deliver. For example, in 2018, ABP joined the Cerrado Initiative, aimed at stopping deforestation in this region. After joining, deforestation in the Cerrado not just continued, but actually increased - by 13% from 2019 to 2020, according to INPE data, amounting to 7,340 km2 – an area five times the size of London.[43] Then, from August 2020 to July 2021, the highest deforestation rate in the Cerrado was measured since 2015: a horrifying 8,531 km2 or six times the size of the city of São Paulo.[44] It is noteworthy that ABP often mentions its involvement in the Cerrado Initiative, but always fails to mention that this has not come close to stopping deforestation, in fact, has not even prevented deforestation in the Cerrado to worsen.

In the same vein, ABP lists the companies with which it has engaged and on which theme, but it does not disclose concrete results (or even ABP's asks).[45] It is therefore impossible to ascertain if these engagements have any results. So far, we have no indications that ABP has ever engaged on farm animal welfare and/or the protein transition with any company – let alone achieved concrete progress.

## ABP'S VOTING BEHAVIOUR

A visit to ABP's voting dashboard[46] showed that over the past five years hardly any stakeholder proposals on environmental topics were made by shareholders of the 10 companies ABP invests most in. With the only proposals relating to antibiotics, deforestation, water quality and sustainable packaging. Animal welfare related proposals were entirely absent, meaning that neither ABP, nor other shareholders have taken any effort towards pushing these companies to comply with the absolute minimum standards necessary to slightly better farm animals' lives.

Even so, it is clear that years of ABP engagements with fossil fuel companies did not deliver sufficient results: in October 2021 ABP decided to divest from fossil fuel companies. As ABP declared: 'We see insufficient opportunity to use our influence as shareholder to enable these companies to make the switch from fossil to sustainable energy.'[47] So far, ABP has failed to demonstrate why its influence as a shareholder will be sufficient to let meat and dairy companies make the switch to plant-based and higher welfare.

Shockingly, ABP does not measure the supply chain emissions of its investments, the so-called Scope 3 emissions (with the exception of real estate).[48] For food companies, Scope 3 emissions constitute around 88% of their climate footprint.[49] By not accounting for Scope 3 emissions, ABP wilfully remains blind for almost 9/10 of its climate impact in the food sector.

The gap between the ambition and objectives of the Dutch government and those of ABP is further illustrated by the 2022 policy assessment by the Fair Pension Guide. In this assessment, ABP scored two out of 10 on the theme of food. For animal welfare and nature, their score was even more abysmal: one out of 10.[50] A 2019 report of the Fair Pension Fund Label already identified ABP's lack of a farm animal welfare policy.[51]

This means that on the one hand the Dutch state strives to transform the food system, whilst on the other hand it invests billions of euros in maintaining the status quo of the worsening climate and biodiversity crisis and the mass suffering of farm animals via the pension fund its civil servants and education workers are obliged to participate in.

**Image:** A bird can fly away from burned areas, but the impacts of inhaled smoke can be fatal. As well as the lack of food in the devastated areas. Credit: Noelly Castro / World Animal Protection

## ABP: 'WE WON'T RECEIVE IT'

Astonishingly, ABP does not seem interested in calls for change. In September 2020, World Animal Protection published an open letter to the Dutch financial sector in 3 national newspapers, co-signed by 16 national and international NGOs. In this letter, World Animal Protection called for investments in a food system that is:

1. Animal-friendly. There should be no cages, no breeds excessively bred for production. Animals should have enough space for natural behaviour.
2. More plant-based. Production and consumption of animal products should be at least halved by 2040.
3. Circular and sustainable. Growing monocultures (like soy) for livestock feed should be phased out.

World Animal Protection then asked the public to endorse the letter. More than 100.000 people did, by putting their signature underneath the letter. A substantial number of signatures belonged to people who are participant in ABP. When World Animal Protection approached ABP to handover the letter and the 100.000 signatures, the pension fund repeatedly refused to even receive it.[52]

### Policies of meat & dairy companies

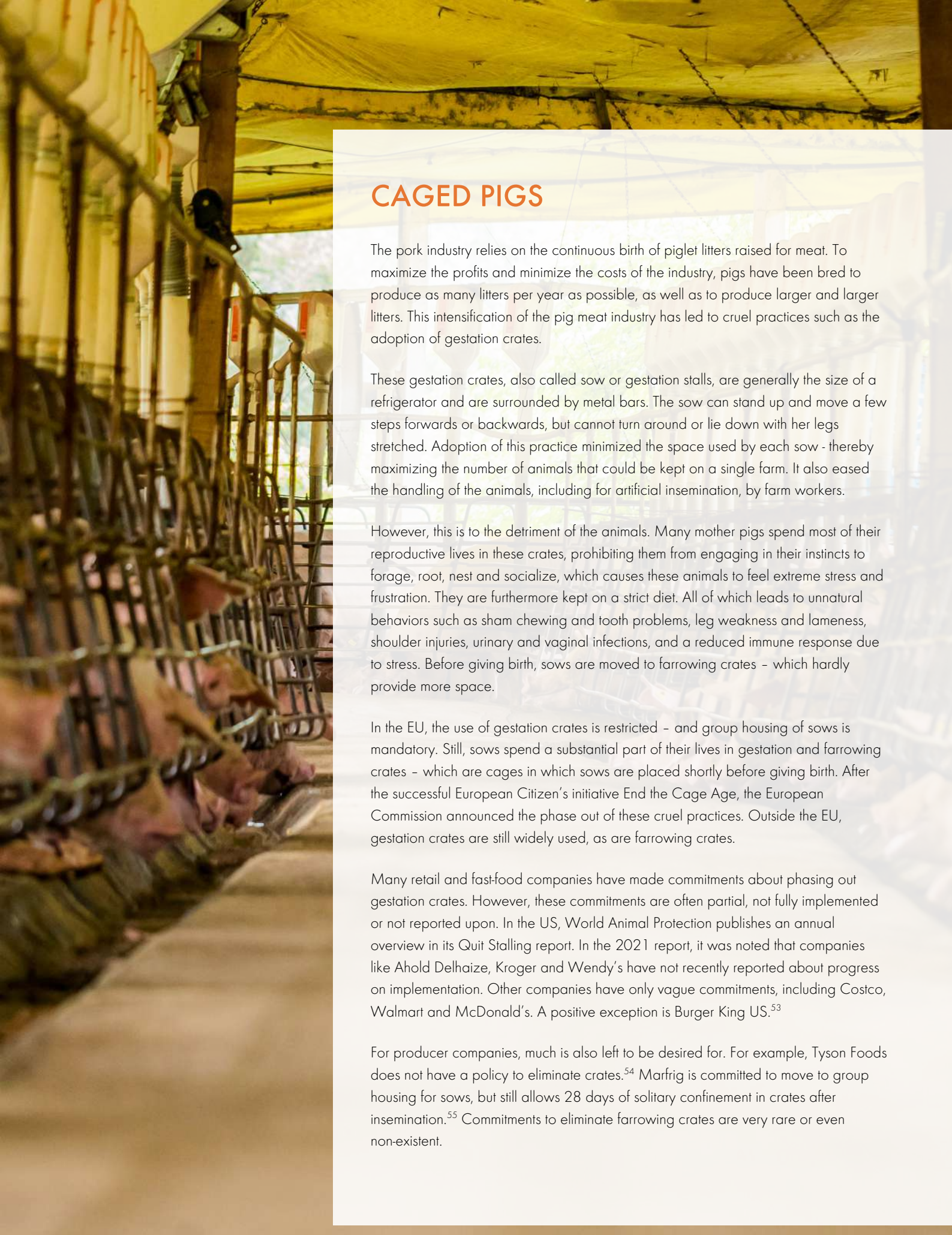
If ABP's policy falls short, what about the companies it is invested in? To answer this question, we looked at 10 meat and dairy company policies on farm animal welfare and the protein transition – which can be summed up by the motto 'less but better meat/dairy'. For this, we looked at some of the most pressing animal welfare issues, selected from the Farm Animals Responsible Minimum Standards and the Fair Finance Guide International criteria. The aim was not to provide a comprehensive overview but to focus on a limited set of absolute minimal standards, to provide a proxy of the corporate social responsibility of ABP's investee companies.

The criteria used are the following:

1. Committed to the Better Chicken Commitment (to eliminate the worst aspects of meat chicken production, see page 12)
2. Ban of gestation crates (sows)
3. Ban of caging of egg-laying hens
4. Grazing by milk cows in grass growing season
5. Food for beef cows (max 40% grains)
6. Transportation of all animals of 8 hours max
7. Slaughter:
    a. poultry – controlled atmospheric stunning using inert gas or multi-phase systems, or effective electrical stunning without live inversion (no waterbath method),
    b. pigs – effective stunning, no CO2 gassing,
    c. beef/dairy cattle - Electroimmobilisation, casting or rotation of cattle must not be used.

Policies regarding the protein transition should adhere to the following criterium, based on the Fair Finance Guide International methodology:

1. Companies contribute to an ambitious, time-bound shift from animal protein to plant and alternative proteins in order to decrease animal protein consumption.



# CAGED PIGS

The pork industry relies on the continuous birth of piglet litters raised for meat. To maximize the profits and minimize the costs of the industry, pigs have been bred to produce as many litters per year as possible, as well as to produce larger and larger litters. This intensification of the pig meat industry has led to cruel practices such as the adoption of gestation crates.

These gestation crates, also called sow or gestation stalls, are generally the size of a refrigerator and are surrounded by metal bars. The sow can stand up and move a few steps forwards or backwards, but cannot turn around or lie down with her legs stretched. Adoption of this practice minimized the space used by each sow - thereby maximizing the number of animals that could be kept on a single farm. It also eased the handling of the animals, including for artificial insemination, by farm workers.

However, this is to the detriment of the animals. Many mother pigs spend most of their reproductive lives in these crates, prohibiting them from engaging in their instincts to forage, root, nest and socialize, which causes these animals to feel extreme stress and frustration. They are furthermore kept on a strict diet. All of which leads to unnatural behaviors such as sham chewing and tooth problems, leg weakness and lameness, shoulder injuries, urinary and vaginal infections, and a reduced immune response due to stress. Before giving birth, sows are moved to farrowing crates – which hardly provide more space.

In the EU, the use of gestation crates is restricted – and group housing of sows is mandatory. Still, sows spend a substantial part of their lives in gestation and farrowing crates – which are cages in which sows are placed shortly before giving birth. After the successful European Citizen's initiative End the Cage Age, the European Commission announced the phase out of these cruel practices. Outside the EU, gestation crates are still widely used, as are farrowing crates.

Many retail and fast-food companies have made commitments about phasing out gestation crates. However, these commitments are often partial, not fully implemented or not reported upon. In the US, World Animal Protection publishes an annual overview in its Quit Stalling report. In the 2021 report, it was noted that companies like Ahold Delhaize, Kroger and Wendy's have not recently reported about progress on implementation. Other companies have only vague commitments, including Costco, Walmart and McDonald's. A positive exception is Burger King US.[53]

For producer companies, much is also left to be desired for. For example, Tyson Foods does not have a policy to eliminate crates.[54] Marfrig is committed to move to group housing for sows, but still allows 28 days of solitary confinement in crates after insemination.[55] Commitments to eliminate farrowing crates are very rare or even non-existent.

**Table 11 - Overview of whether the top ten meat and dairy production companies ABP invests in meet the absolute minimal animal welfare criteria for pigs, chickens and cows and whether they have a protein transition target. X (dark red) means the criterium is not met, V (orange) means the criterium is met, - (grey) means it is not relevant for the company and yellow means it is only partly the case.**

| | Nestlé | China Mengniu Dairy Co LTD | Hormel Foods Corp | JBS SA | Tyson Food Inc | Marfrig Global Foods SA | NH Foods LTD | BRF SA | Muyuan Foods Co LTD | Danone SA |
|---|---|---|---|---|---|---|---|---|---|---|
| Better chicken commitment | V (EU) | - | V | X | X | X | X | X | - | X (V Europe) |
| Ban of gestation crates (sows) | V | - | X | V (UK) | X | X[ii] | X | V | X | V |
| Ban of caged egg-laying hens | V | - | V | V | X | V | - | V | - | V |
| Grazing milk cows during grass-growing season | X | X | X | - | - | - | X | X | - | X |
| Meat cattle feed – max 40% grains | | - | X | X | X | X | X | - | - | - |
| 8 hour transportation max | X | X | X | X | X | X | X | X | - | V |
| Slaughter:<br>• Poultry: no electrical water bath method. | V | - | V | X | X | - | X | X | - | X |
| • Hogs: no CO2 gassing. | - | - | X | X | X | X | X | X | - | X |
| • beef/dairy cattle: Electroimmobilisation, casting or rotation of cattle must not be used. | X | X | X | X | X | X | X | X | - | X |
| Protein transition statement | V | X | X | X | X | X | X | X | X | X |

The table above illustrates that for the ten meat and dairy companies in which ABP has the most investments, the minimally necessary criteria are not met or only partially met. Typically:

- companies do not have clear animal welfare policies. They often have animal welfare policies but in very vague terms or they have animal welfare criteria but they do not meet the necessary standards;
- companies refer to respecting the Five Freedoms, but this is not reflected in the (lack of) requirements they set for themselves or suppliers;
- companies have no protein transition objectives/strategy. Only Nestlé has a clear protein transition statement.

[ii] *FARMS: "Dry sows and gilts must be housed in groups and may only be kept in stalls or crates for a maximum of four days after insemination." Marfrig has a commitment that allows for sows to stay in gestation crates for up to 28 days and therefore does not comply.*

## Financial institutions

To assess the farm animal welfare policies of the banks ABP is invested in, we used the ranking by Sinergia Animal, which is mainly based on the criteria that were developed by the Fair Finance Guide International. It includes several criteria for different categories such as farm animals, animal welfare in (medical) testing, fashion, conservation, education, entertainment, and commercial activities. For this assessment we only focused on the criteria for farm animals and the related scores on this topic. The assessed banks were scored on ten different criteria within the field of farm animals and a total of 20 points could be received in this category (see the appendix for more details). Note that protein transition is also part of the list of criteria.

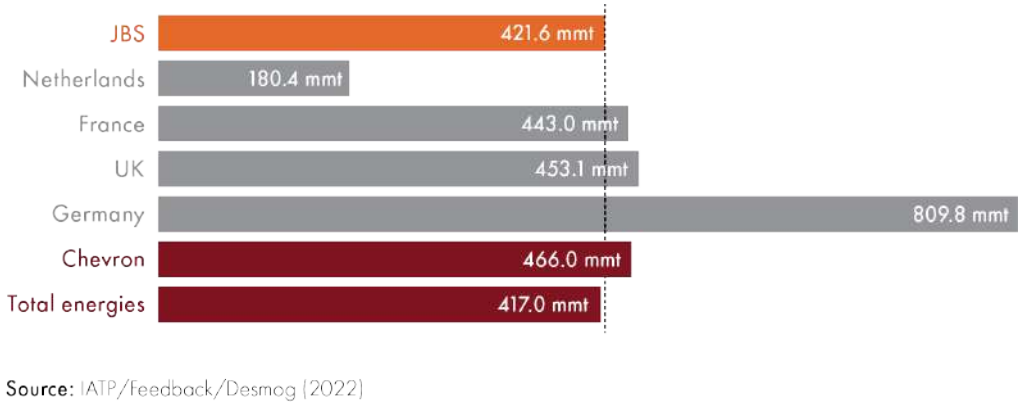
| Name | Country | Score on Farm Animal Welfare |
|---|---|---|
| Banco Bradesco SA | Brazil | 0 |
| Banco de Chile | Chile | 0 |
| Banco de Credito e Inversiones SA | Chile | 0 |
| Banco do Brasil SA | Brazil | 0 |
| Banco Santander SA | Spain | 0 |
| Bancolombia SA | Colombia | 0 |
| Bank Mandiri Persero Tbk PT | Indonesia | 0 |
| Bank Negara Indonesia Persero Tbk PT | Indonesia | 0 |
| Bank of America Corp | United States | 0 |
| Bank of China - Luxembourg Branch | China | 0 |
| Bank Rakyat Indonesia Persero Tbk PT | Indonesia | 0 |
| BlackRock Inc | United States | 0 |
| Citigroup Inc | United States | 0 |
| Credit Agricole SA | France | 0 |
| Credit Suisse Group AG | Switzerland | 0 |
| Deutsche Bank AG | Germany | 0 |
| Goldman Sachs Group Inc/The | United States | 0 |
| Itau Unibanco Holding SA | Brazil | 0 |
| JPMorgan Chase & Co | United States | 0 |
| Kasikornbank PCL | Thailand | 0 |
| Krung Thai Bank PCL | Thailand | 0 |
| Mizuho Financial Group Inc | Japan | 0 |
| Morgan Stanley | United States | 0 |
| Natwest Group PLC | United Kingdom | 0 |
| Royal Bank of Canada | Canada | 0 |
| Siam Commercial Bank PCL/The | Thailand | 0 |
| The Bank of New York Mellon Corporation | United States | 0 |
| Toronto Dominion Bank | Canada | 0 |
| UBS Group AG | Switzerland | 0 |
| Westpac Banking Corp | Australia | 0 |
| Bank of Nova Scotia/The | Canada | 1 |
| Barclays PLC | United Kingdom | 1 |
| HSBC Holdings PLC | United Kingdom | 1 |
| United Overseas Bank Ltd | Singapore | 1 |
| Wells Fargo Bank NA | United States | 1 |
| Standard Chartered PLC | United Kingdom | 3 |
| DBS Group Holdings Ltd | Singapore | 4 |
| BNP Paribas SA | France | 8 |
| ING Groep NV | Nederland | 10 |
| National Australia Bank Ltd | Australia | 10 |

The picture Table 12 above provides is bleak. 30 out of the 40 banks ABP is invested in score zero points on farm animal welfare. Another five banks score only one point out of 20. Three banks score respectively three, four and eight points out of 20. Only two banks reach half of the points, 10 out of 20. This means that the vast majority of these banks do not even address the most critical farm animal welfare issues– like the use of gestation crates and battery cages - in their policies, let alone the necessary transition towards a more plant-based food system.

# SPOTLIGHT ON JBS

The Brazilian company JBS is the world's biggest meat producer. The company is named after the initials of its founder, José Batista Sobrinho, who started a small cattle slaughterhouse in the 1950s. In the early 2000s, his sons José Jr. Wesley and Joesley Batista took over the leadership. Through loans provided by the Brazilian development bank, BNDES, from 2004 onwards, the company was able to take over a series of big meat companies and within a decade it grew from an average sized beef company into the largest meat company on the planet. The company grew from 2 billion US dollars of revenue in 2006 to 65 billion US dollars of revenue in 2021. Currently, JBS slaughters a staggering 27 million cattle, 47 million pigs and 4,9 billion meat chickens per year.

Besides being linked to a range of large scale animal welfare problems (see table 11 for a snapshot), JBS is a substantial contributor to GHG emissions. Its 2021 emissions are calculated to be 421.6 mmt CO2 equivalent, which is more than twice the total emissions of the whole of the Netherlands in the same year. This represents a 51% increase in GHG emissions since 2016.[56] Even though JBS mentions a commitment to reduce scope 3 emissions, representing 97% of JBS's climate footprint, they do not provide any clear and measurable roadmap on how to cut, measure or disclose these emissions. In this light, the company's rhetoric on reducing Scope 1 and 2 emissions (limited to its plants and offices) must be considered as blatant greenwashing.[57]




Source: IATP/Feedback/Desmog (2022)

Figure 5 – **Comparison of JBS greenhouse gas emissions.**

JBS has failed for many years to guarantee its beef is deforestation-free, which prevents its many buyers from complying with zero deforestation. It is conservatively estimated that JBS' total deforestation footprint may be as high as 200,000 hectares in its direct supply chain and a staggering 1.5 million hectares in its indirect supply chain.[58] In January 2022, a Bloomberg investigation concluded that JBS was "one of the biggest drivers of Amazon deforestation". In fact, JBS has not pledged to stop deforestation across its global supply chain before 2035 and has no adequate accountability mechanism to ensure this target is met.

*"In their emission disclosure and their net-zero target for 2040 JBS fails to take responsibility for an estimated 97% of its emissions footprint, by neglecting emissions from farms and feedlots that are not owned by JBS and emissions related to deforestation. The company plans to continue growth in a GHG emission-intensive industry; we did not find evidence of any planned deep decarbonization measures."* - Corporate Climate Responsibility Monitor 2022

JBS's previous auditor DNV-GL called out the company for falsely claiming that its operations in Brazil's Amazon region are deforestation-free.[59] This is not the first (or last) time JBS has been called out. In 2017, JBS was at the center of a large corruption case, which revealed that the company had bribed no less than 1,800 politicians for a total of 150 million dollars.[60] In recent months and years, JBS has come under scrutiny for price-fixing.

ABP has direct investments in JBS totaling 68 million euros. However, it also has a substantial indirect investment footprint. For example, after the Batista family and BNDES, BlackRock is JBS's biggest investor – and ABP has invested € 256 million in BlackRock. ABP is also invested in Barclays (€ 81 million), which provided 860 million in financial backing to JBS in 2021.[61] Moreover, ABP is invested in key customers of JBS including McDonalds, Nestlé and Costco. As such, ABP has a substantial supply chain responsibility regarding JBS and multiple leverage points.

**Image:** Illegal fire burn forest trees in the Amazon rainforest, Brazil. Aerial view of deforestation area for pasture, livestock and agriculture soy farm.
Credit: PARALAXIS / Shutterstock

# TRANSFORMING THE FOOD SYSTEM, RECOMMENDATIONS

**Improving elements of the current industrial model, predominantly based on the production of animal protein, is not enough. The model itself has reached a dead end. And time is running out. The global food system needs immediate transformation. ABP should therefore urgently change from being part of the problem to become part of the solution.**

Rethinking the role of animals in food production is essential for this transformation. We need to return to the acknowledgment that plants are the basic building blocks of food, used to feed people first. This then leads to a careful reconfiguration of the role of animals in human food systems. Their role should be limited to converting streams of by-products not of immediate use for human consumption, unavoidable food waste and to grazing on lands not suitable for growing food for humans, thereby putting their natural behaviors, health and welfare central stage.[62]

Inevitably, this requires a shift in diets. As the 2022 IPCC report notes: 'shifting diets toward a more vegetarian balance, can reduce land-use emissions without compromising the quality of life.'[63] Moving from current diets heavily based on animal derived products to a plant-based diet has the potential to decrease food's GHG emissions by 6.6 billion metric tons of CO2eq, a 49% reduction. Moreover, it could reduce the land used for food by 3.1 billion hectares, more than the entire areas of China, the USA and Brazil put together.[64]

In light of the above, ABP should **commit to a transformation of the food system**, including zero tolerance for deforestation and based on a 1.5 degrees scenario aligned with the Paris Climate Agreement. This commitment should entail: a commitment to high animal welfare, a shift from animal-based food to more plant-based food and a transition to sustainable, circular agriculture.

More specifically, ABP needs to develop a robust policy on deforestation and sustainable food systems, which include Key Performance Indicators (KPIs). This policy should focus on achieving the following:

1. **High animal welfare:** implementation of the standards of the FARMS initiative as a minimum. This includes no cages and crates, the phasing out of painful procedures, using higher welfare breeds, limiting transport times, and adopting more humane slaughter methods. Given the enormous potential of a shift towards plant-based food, (alleged) trade-offs between the reduction of GHG emissions and animal welfare within industrial livestock production are unacceptable. Companies should only use antibiotics for treatment, not for mass prophylaxis or growth promotion.

2. **Protein transition:** at least halving current protein production and consumption by 2040.

3. **Sustainable, circular agriculture:** including the phasing out the use of monocrops like soy as feed for chickens, pigs and cows.

Furthermore, ABP needs to:

- Communicate expectations and formalize requirements. Sustainability expectations – including on animal welfare and the protein transition – need to be clearly communicated to new and existing investee companies.

- Screen companies within meat/dairy/eggs and animal feed supply chains. Screening must be done regularly and should not be limited to new investments. The information from companies and from service providers needs to be triangulated with all relevant information obtained from NGOs, experts and knowledge institutes. Meaningful engagement with local, actual and potentially affected stakeholders, such as indigenous peoples and other affected communities is also vital. Screening should aim to identify if the company and – when relevant – its suppliers meet the principles and criteria included in the financial institution's policy. Company involvement in adverse impacts may also pertain to its lobbying activities. Such activities could be aimed at weakening legislation and enforcement to protect humans, animals or the environment – or to prevent existing legislation being strengthened.

- Exclude clear offenders. When screening clarifies a company's systematic involvement in adverse impacts (including on animal welfare), and prospects for adequate improvement are low, the company should be excluded from investment and other financing.

- Engage with companies. Engagement with companies which may not meet all principles and criteria included in the financial institution's policy, must lead to a clear understanding of the problem. It should also lead to an agreement regarding steps needed to achieve better alignment. This agreement needs to be summarized in a time-bound action plan to which the company commits. It should include a clear description of the consequences when the company breaches these commitments.

- Monitor and act. The company's progress in implementing an action plan must be monitored. If progress is insufficient, ABP must decide to divest. Monitoring and reporting on GHG emissions must include Scope 3 emissions.

- Vote on shareholder resolutions. ABP should use the voting rights on the shares of the high-risk companies it holds. Moreover, since such shareholder resolutions may not adequately address deforestation's root causes, investors should also take the initiative to file and recruit support for more transformational shareholder resolutions.

- Take collective initiative. ABP needs to collaborate with peers, with NGOs, national and local governments, and other stakeholders. Collectively they should help stop and reverse deforestation, facilitate the transition to a sustainable, more plant-based food system, and safeguard animal welfare.

- Ensure effective grievance mechanisms. Effective grievance mechanisms should be in place for all relevant stakeholders, that could be affected by the adverse impacts linked to those companies that financial institutions are financing or investing in.

- Disclose and be transparent. Full transparency needs to be a condition for investment, this should not be limited to disclosure of the names of the companies in investment portfolios, but is also needed regarding deforestation-related policies (including on animal welfare, the protein transition and antibiotics use), screening procedures, engagement processes, voting behavior and collective initiatives, and the progress achieved against KPIs.

# APPENDIX. RESEARCH METHODOLOGY

This research consisted of three parts:

1. A mapping of ABP's investments in companies that are part of the global industrial livestock complex
2. An assessment of the farm animal welfare and protein transition policies of 10 meat and dairy companies ABP invests in
3. An assessment of the farm animal welfare and protein transition policies of 40 banks ABP invests in, based on the Bank for Animals ranking (see below).

For the mapping of investments, we assessed the investment portfolio of ABP and selected the companies related to factory farming. To do this we used ABP's PDF investment file, available on its website[65]. Note that the figures it contains may differ from the figures published elsewhere on ABP's website, but according to the file date, the PDF contains the most recent figures. We divided the investment into four categories related to the animal and food nexus: meat and dairy production, retailers/fast-food chains, supply companies and financial institutions. ABP has an immense investment portfolio. For that reason, a selection had to be made for the four categories on which companies to assess.

Each sector was researched in a slightly different way, as explained in the figure below:

### MEAT AND DAIRY PRODUCERS

ABP's ten biggest investments in the meat and dairy industry (Ch.2)

What are the policies of these companies concerning animal welfare and the protein transition? (Ch.3)

### RETAILERS & FAST-FOOD COMPANIES

What are the five biggest retailers and fast-food companies worldwide (related to meat and dairy production)?

How much does ABP invest in these companies? (Ch.2)

### SUPPLY COMPANIES

What are the five biggest pesticide, GMO seed, fertilizer companies and big pharmas?

How much does ABP invest in these companies? (Ch.2)

### FINANCIAL SECTOR

In which banks ranked in the BanksforAnimals rating is ABP invested - and for how much (Ch. 2)

What are the scores on farm animal welfare/protein transition of these banks? (Ch.3)

To show the extent to which ABP is involved in the whole meat and dairy industry, the focus of this research was expanded beyond the meat and dairy production companies. These three categories and their impacts are therefore briefly described in step one using anecdotal evidence and already available benchmark data to show their relation to animal welfare.

In the second part of the research we zoomed in on the ten biggest investments of ABP into the meat and dairy production companies. This part of the assessment focused on the animal welfare policies of these companies; do they have any and, if so, do they align with the FARMS initiative? To find the answers to these questions we searched for publicly available animal welfare policies on company websites, sustainability reports and ESG reporting. If no mention of the criteria was found, it was concluded that clear targets or policies on this topic were lacking.

For the assessment of the meat and dairy production companies a brief set of standards was used based on the Farm Animal Responsible Minimum Standards (FARMS). The FARMS Initiative was set up to help financial institutions to encourage and support companies in the meat, dairy and egg supply chains towards meeting the responsible minimum standards with respect to how farm animals are raised, transported and slaughtered. It seeks modest, yet impactful improvements for all types of farm animals, based upon the principles of several global frameworks. The responsible minimum standards per species can be found here.

## Banks for Animals

Banks for Animals was launched in 2021 by the international NGO Sinergia Animal in order to bring more transparency to the financial sector. The initiative assesses the policies of banks on the worst forms of animal cruelty. It does not assess the execution, meaning that they cannot assure that banks are enforcing their own promises. Furthermore, they take, just like we do, only the most critical standards and assess whether they are mentioned in the banks policies. Their assessment is divided over several categories;

- Animal farming and food production
- Animal testing
- Pets, entertainment and fashion
- Governance

For this study we focus on animal farming and food production, therefore only the criteria mentioned in this category were used in our assessment. The ten criteria Banks for Animals uses are as follows[66].

**Table 13 - Banks for Animals criteria for farm animals.**

| | |
|---|---|
| Five Freedoms | Financial institutions should require the companies they fund to respect the Five Freedoms, which state that animals should be free from:<br>• Hunger, thirst, and malnutrition<br>• Any thermal or physical discomfort<br>• Pain, injury, and diseases<br>• Fear and chronic stress<br>• The denial of natural (species-specific) behaviour |
| Cages | Financial institutions should refuse to fund companies that use cages, crates, tethering, and other severely restricting housing or movement methods, including keeping calves in crates, sows in farrowing and/or gestation crates, laying hens in cages, and animals on fully slatted floors. |
| Environmental Conditions | Financial institutions should only accept to fund companies that ensure adequate environmental conditions for animals that do not subject them to extreme temperatures and that provide them with access to clean air, water, and enriching environments that meet the minimum criteria as defined by the FARMS Initiative, where applicable. |
| Mutilations criteria | Financial institutions should refuse to fund companies that perform painful procedures such as teeth clipping/grinding, dehorning, debeaking, tail docking, and castration. When painful procedures must be carried out, for medical reasons, legal reasons, or as measures of last resort, animals must receive appropriate anaesthetics and analgesics to significantly reduce pain levels. |
| Breeding criteria | Financial institutions should only finance companies that are committed to animal welfare in breeding and genetic selection. |
| Transport criteria | Financial institutions should only finance companies that minimize animal transportation time. |
| Slaughter criteria | Financial institutions should only fund companies that slaughter animals (including fish and animals considered as vermin) in the least distressing and most pain-free way. |
| Reporting criteria | Financial institutions should only finance companies that provide, at least once a year, independently audited reports detailing how they implement and comply with minimum animal welfare standards. |
| Antimicrobials criteria | Financial institutions should only fund companies that use antimicrobials (such as antibiotics) in food-producing animals in a prudent manner to minimize AMR. |
| Shift to plant-based criteria | Financial institutions should only fund companies that commit to making a switch from animal protein to plant-based and alternative protein to reduce animal-based protein consumption. |

Image: Mother pigs have a natural instinct to nest to prepare for the birth of their piglets, but she cannot do this in a steel cage on a factory farm.
Credit: Emi Kondo / World Animal Protection

# REFERENCES


1. Oken, E. et al. (2022). Establishing a Framework for Food and Agriculture Sustainability Transition. J.P. Morgan Chase & Co, p.4.
2. Poore, J., & Nemecek, T. (2018). Reducing food's environmental impacts through producers and consumers. Science, 360(6392), 987-992.
3. FAO (n.d.). The share of agri-food systems in total greenhouse gas emissions. Global, regional and country trends 1990-2019. FAOSTAT Analytical Brief 31.
4. Searchinger, T., et al. (2019). Creating a sustainable food future. World Resources Report.
5. Weis, T. (2013). The Ecological Hoofprint, The Global Burden of Industrial Livestock, p.1-4.
6. ABP (2020). Duurzaam en verantwoord beleggingsbeleid ABP vanaf 2020. Online: https://www.abp.nl/images/dvb-beleid-abp.pdf viewed June 2022.
7. World Animal Protection (2022). The hidden health impacts of industrial livestock systems. World Animal Protection, London UK. p.9.
8. Ibidem, p.11
9. Chemnitz, C. & Becheva, S. (2021). The Meat Atlas. Heinrich Böll Stiftung, Friends of the Earth Europe & Bund. p.26
10. World Animal Protection (2022). The hidden health impacts of industrial livestock systems. World Animal Protection, London UK. p.14.
11. Poore, J., & Nemecek, T. (2018). Reducing food's environmental impacts through producers and consumers. Science, 360(6392), 987-992.; FAO (n.d.). The share of agri-food systems in total greenhouse gas emissions. Global, regional and country trends 1990-2019. FAOSTAT Analytical Brief 31.
12. Poore, J., & Nemecek, T. (2018). Reducing food's environmental impacts through producers and consumers. Science, 360(6392), 987-992; Holth, J. K., et al. (2019). "Erratum for the Research Article "Reducing food's environmental impacts through producers and consumers" by J. Poore and T. Nemecek." Science 880 (2019): 831.
13. Steinfeld, H. et al. (2006), Livestock's Long Shadow. FAO, Rome, p.112; Röös, E. et al. (2016). Protein futures for Western Europe: potential land use and climate impacts in 2050. Regional Environmental Change 17.2 (2017): 367-377.
14. For a 2 degrees Celsius scenario, the WRI model projects allowable emissions of 21 GT CO2 equivalent in 2050. With a continuing trend of productivity gains, agricultural emissions would rise to 15 GT CO2 equivalent in 2050. Without productivity gains however, agricultural emissions would rise to 38 GT CO2 equivalent in 2050. Searchinger, T., et al. (2019). Creating a sustainable food future. World Resources Report.
15. GRAIN and the Institute for Agriculture and Trade Policy (IATP) (2018). Emissions impossible - How big meat and dairy are heating up the planet. p. 2.
16. Poore, J., & Nemecek, T. (2018). Reducing food's environmental impacts through producers and consumers. Science, 360(6392), 987-992.; Ritchie, H. & Roser, M. (2020). Environmental impacts of food production. *Our world in data*.
17. Hanson, T. (2019, August 23). Why have 500m bees dies in Brazil in the past three months? The Guardian, Online: https://www.theguardian.com/commentisfree/2019/aug/29/500-million-bees-brazil-three-months, viewed October 2020; Carta Campinas (2019, March 7). Com 500 milhões de abelhas mortas em três meses, agricultura brasileira pode entrar em colapso. Online: https://cartacampinas.com.br/2019/03/com-500-milhoes-de-abelhas-mortas-em-tres-meses-agricultura-brasileira-pode-entrar-em-colapso, viewed October 2020. See also: Regía, M. & E. Oliveira (2020, May 31). Avanço da soja cria 'cemitério de colmeias' no interior do Pará. BBC, online: https://www.bbc.com/portuguese/brasil-52776670, viewed October 2020. For current state of play on the partial EU ban on neonicotinoids: European Commision (2020), online: https://ec.europa.eu/food/plant/pesticides/approval_active_substances/approval_renewal/neonicotinoids_en, viewed October 2020. In the EU, Fipronil is prohibited as insecticide, the only use allowed in the EU is in vet medicine.
18. Wurtsbaugh, W. A., Paerl, H. W., & Dodds, W. K. (2019). Nutrients, eutrophication and harmful algal blooms along the freshwater to marine continuum. Wiley Interdisciplinary Reviews: Water, 6(5), e1373.; Michael Beman, J., Arrigo, K. R., & Matson, P. A. (2005). Agricultural runoff fuels large phytoplankton blooms in vulnerable areas of the ocean. Nature, 434(7030), 211-214.; Moxey, A. (2012). Agriculture and water quality: Monetary costs and benefits across OECD countries. Organisation for Economic Co-operation and Development. Online at www. oecd. org/tad/sustainable-agriculture/49841343. pdf., viewed October 2020.
19. Han, W. J. et al. (2019) Impacts of nitrogen deposition on terrestrial plant diversity: a meta-analysis in China." Journal of Plant Ecology 12.6: 1025-1033.; WallisDeVries, M., & Bobbink, R. (2017). Nitrogen deposition impacts and biodiversity in terrestrial ecosystems: mechanisms and perspectives. Biological Conservation, 387-496.
20. Van der Wal-Zeggelink, C. (2022). Startnotitie Nationaal Programma Landelijk Gebied. Online: https://www.tweedekamer.nl/kamerstukken/brieven_regering/detail?id=2022Z11792&did=2022D24183 viewed June 2022.
21. Goulding, M., R. Barthem and E. Ferreira (2003). The Smithsonian Atlas of the Amazon. Washington and London: Smithsonian books, p. 18, 21, 44; Van Dijkhorst, H., Kuepper, B. & Piotrowksi, M. (2018). Cerrado Deforestation Disrupts Water Systems and Poses Business Risks for Soy Producers. Chain Reaction Research, online: https://chainreactionresearch.com/wp-content/uploads/2018/10/Cerrado-Deforestation-Disrupts-Water-Systems-and-Poses-Business-Risks-for-Soy-Producers-3.pdf, viewed October 2020.
22. Jordan, L. et al. 'Loophole' allowing for deforestation on soya farms in Brazil's Amazon. The Guardian, February 10, 2022, https://www.theguardian.com/environment/2022/feb/10/loophole-allowing-for-deforestation-on-soya-farms-in-brazils-amazon, viewed June 2022.
23. Lenton, T. M. et al. (2019). Climate tipping points–too risky to bet against.. Note that climate change may also cause flipping current savannah-ecosystems elsewhere into forests. The area that may undergo this reverse transition is calculated at 660,000 km2 in South America. See Staal, A. et al. (2020). Hysteresis of tropical forests in the 21st century. Nature communications, 11(1), 1-8. Recent research suggest that global climate change is the main driver of recent drying in the Amazon, more so than deforestation. However, the authors stress that 'a feedback between drought and deforestation implies that increases in either of them will impede efforts to curb both.' Staal, A. et al. (2020). Feedback between drought and deforestation in the Amazon. Environmental Research Letters, 15(4), 044024.
24. Dirk-Jan Verdonk, Jennifer Black et al. (2021). Big meat. Big bucks. Bigger harm. Animal welfare and European financial links with deforestation in the Amazon and Cerrado, World Animal Protection, Londen UK, p.30, 48.

25. Rajão, R. et al. (2020). The rotten apples of Brazil's agribusiness. Science, 369(6501), 246-248. There might be another reason why the success of the Soy Moratorium is less rosy than often imagined. Deforestation is monitored by PRODES, the national deforestation monitoring system, but much of the Amazon deforestation is relatively small-scale and will not be detected by PRODES, which does not consider deforestation of areas smaller than 6.25 ha. See: Soy Moratorium (2018-2019). Soy Moratorium: monitoring soy crops in the Amazon biome using satellite images. Online: https://abiove.org.br/wp-content/uploads/2019/01/Soy-Moratorium-Report-2018.pdf, viewed June 2020. A study by Trase published in June 2020 identified illegal deforestation on soy properties in the Amazon. In the Amazonian part of Mato Grosso, the researchers first found that 24,000 ha of soy had been planted on land deforested between 2012-2017. This was consistent with non-compliance reported by the Soy Moratorium monitoring mechanism. Later they found an additional 115,000 ha of deforestation within the boundaries of soy farms in the Amazon biome in Mato Grosso, of which 106,000 ha (92%) was deforested illegally. The authors mention that these areas had not been converted for soy by 2017, and would not be detected by the Soy Moratorium monitoring mechanism because it only monitors the area of land where soy is grown and not the entire farm. "Yet these farms were still in breach of the Forest Code due to illegal deforestation. As a result, the soy produced on these farms may have been exported as deforestation-free under the Soy Moratorium, putting global markets at risk of importing soy from farms linked to illegal deforestation in the Amazon." The three companies most exposed to trade in soy from farms linked to illegal deforestation in Mato Grosso are Amaggi, Cargill and Bunge. Trase is a partnership between Global Canopy and the Stockholm Environment Institute. Vasconcelos, A. et al. (2020). Illegal deforestation and Brazilian soy exports: the case of Mato Grosso. TRASE.
26. This paragraph is based on World Animal Protection (2022). The hidden health impacts of industrial livestock systems. World Animal Protection, London UK.
27. Domingo, N.G.G., et al. (2021). Air quality – related health damages of food. Proceedings of the National Academy of Sciences 118(20).
28. Das, N., & Carlos G. (2020). IPBES (2020) Workshop Report on Biodiversity and Pandemics of the Intergovernmental Platform on Biodiversity and Ecosystem Services. p.5. Research shows that epizootics caused by Highly Pathogenic Avian Influenza in wild bird populations are seldom, and were mostly documented for virus strains that had previously been associated with poultry farming. In contrast, events in which Low Pathogenic Avian Influenza convert to Highly Pathogenic Avian Influenza mainly take place in intensive poultry systems, see: Dhingra, M.S. et al. (2018). Geographical and historical patterns in the emergences of novel highly pathogenic avian influenza (HPAI) H5 and H7 viruses in poultry. Frontiers in Veterinary Science 5: 84. Furthermore: Hollenbeck, J.H. (2016). Interaction of the role of Concentrated Animal Feeding Operations (CAFOs) in Emerging Infectious Diseases (EIDS). Journal of
Molecular Epidemiology and Evolutionary Genetics in Infectious Diseases, volume 38:44-6. -
29. Thompson, T. (2022). The staggering death toll of drug-resistant bacteria. Nature, online on https://www.nature.com/articles/d41586-022-00228-x, viewed June 2022.
30. O'Neill, J. (2014). Antimicrobial resistance: tackling a crisis for the health and wealth of nations. Review on antimicrobial resistance, pp.1-16; World Animal Protection (2020). Fueling the Pandemic Crisis. Factory farming and the rise of superbugs. World Animal Protection, London UK.
31. Compa, L. A. (2004). Blood, sweat, and fear: Workers' rights in US meat and poultry plants. p.2. A 2019 HRW report concluded that circumstances had hardly improved – in many cases even deteriorated. See: McConnell, B. M. (2019). " When We're Dead and Buried, Our Bones Will Keep Hurting": Workers' Rights Under Threat in US Meat and Poultry Plants. Human Rights Watch.
32. World Animal Protection (2022). The hidden health impacts of industrial livestock systems. World Animal Protection, London UK.
33. Van Gelder, J.W. & B. Kuepper (2020). Funding destruction of the Amazon and Cerrado-savannah - A Fair Finance Guide Netherlands case study on deforestation risks in soy and beef supply chains, Amsterdam, The Netherlands: Profundo, p.35-37.
34. RSPCA (2020), Eat. Sit. Suffer. Repeat. The life of a typical meat chicken, p.11-13.
35. Feedback. (2020). Butchering the planet: The big-name financiers bankrolling livestock corporations and climate change. London. p.10.
36. Skea, J., Shukla, P., & Kılkış, Ş. (2022). Climate Change 2022: Mitigation of Climate Change. IPCC Working Group III Contribution to the sixth assessment report. SPM 14.
37. Ministry of agriculture, nature and food quality of the Netherlands (2018). Agriculture, Nature and Food: valuable and connected. Den Haag, the Netherlands, p.20
38. Ibidem, p.23
39. Staghouwer, H. (2022). Kamerbrief: Evaluatie voedselagenda 2016-2020 en het voedselbeleid. p.2 d
40. ABP (2020). Duurzaam en verantwoord beleggingsbeleid ABP vanaf 2020. Online: https://www.abp.nl/images/dvb-beleid-abp.pdf viewed June 2022.
41. ABP (2020). Beleggen in verantwoord landgebruik. Online: https://www.abp.nl/images/factsheet-verantwoord-landgebruik.pdf viewed June 2022.
42. ABP (2020). Beleggen in de circulaire economie. Online: https://www.abp.nl/images/abp-factsheet-circulaire-economie.pdf viewed June 2022.
43. Wenzel, F. (2021). End of deforestation tracker for Brazil's Cerrado an 'incalculable loss'. Mongabay series, online https://news.mongabay.com/2021/08/end-of-deforestation-tracker-for-brazils-cerrado-an-incalculable-loss/#:~:text=Deforestation%20in%20the%20Cerrado%20increased,may%20collapse%20within%2030%20years viewed June 2022.
44. Wenzel, F. (2022). As its end looms, Cerrado tracker records 6-year deforestation high. Mongabay series, online https://news.mongabay.com/2022/01/as-its-end-looms-cerrado-tracker-records-6-year-deforestation-high/ viewed June 2022.
45. ABP (2021). Engagement met bedrijven. Online; https://www.abp.nl/images/Engagement-met-bedrijven-2021_3.pdf viewed June 2022.
46. ABP Proxy Voting Dashboard. Online: https://vds.issgovernance.com/vds/#/MzU2OQ== viewed June 2022.
47. ABP (2022). ABP stopt met beleggen in producenten van fossiele energie. Online: https://www.abp.nl/over-abp/duurzaam-en-verantwoord-beleggen/abp-stopt-met-beleggen-in-producenten-van-fossiele-energie.aspx viewed June 2022.
48. ABP (2021). Meten en sturen op de CO2-voetafdruk van onze beleggingen. Online: https://www.abp.nl/images/ABP%20CO2%20methodologie_3.pdf viewed June 2022.
49. Hansen, A. D. (2022). The status of corporate greenhouse gas emissions reporting in the food sector: An evaluation of food and beverage manufacturers. Journal of Cleaner Production, 132279. .

50. van Loenen, L. (2022). Beoordeling van het duurzaamheidsbeleid van tien pensioenfondsen – tweede actualisering, Amsterdam, Nederland: Profundo.
51. Mishra, K., W. Warmerdam and D.J. Verdonk (2019). Mapping farm animal welfare risks - Case study on investments by Dutch pension funds in high risk companies in the chicken and pig meat value chain, Amsterdam, The Netherlands: Profundo.; Simons, M. (2019, maart), Eerlijk Pensioenlabel. Beoordeling van het duurzaamheidsbeleid van tien Nederlandse pensioenfondsen – pilotstudie, Amsterdam, Nederland: Profundo.
52. Email correspondence, April 6th 2021, April 23rd 2021, May 5th 2021, September 7th 2021, September 14th 2021, September 29th 2021.
53. World Animal Protection (2021). Quit stalling 2021: Are companies making good on promises to end sow confinement? World Animal Protection, London UK.
54. Tyson (n.d.). Animal Welfare – raising animals in comfort. Online: https://www.tysonfoods.com/sites/default/files/2019-04/Tyson_2018_CSR_Animal-Welfare_Housing.pdf viewed June 2022
55. Marfrig Global Foods (2021). Animal Welfare Report. Online: https://www.marfrig.com.br/en/Lists/CentralConteudo/Attachments/5/Animal%20Welfare%20Report%202021.pdf viewed June 2022.
56. Feedback (2022). Media briefing – 21 April 2022. Online: https://feedbackglobal.org/wp-content/uploads/2022/04/JBS-media-briefing-final-with-logo.pdf viewed June 2022.
57. Mighty Earth (2022). The boys from Brazil; How JBS became the world's largest meat company – and wrecked the climate to do it. Mighty Earth, Washington US.
58. Steinweg, T. et al (2020). JBS: outsized Deforestation in Supply Chain, Covid-19 Pose Fundamental Business Risks. Washington, US. See also Amnesty International (2020). From Forest to Farmland: cattle illegally grazed in Brazil's Amazon found in JBS'supply chain. London, UK.
59. Amnesty International (2020). From Forest to Farmland: cattle illegally grazed in Brazil's Amazon found in JBS'supply chain. London UK.
60. Romero, S. (17 March 2017). Brazil's Largest Food Companies Raided in Tainted Meat Scandal. The New York Times; Phillips, D. (2 July 2019). The swashbuckling meat tycoons who nearly brought down a government. The Guardian. See also: Bautzer, T. & Alerigi, A. (19 May 2017). Brazil watchdog opens new probes into JBS-related insider trading. Reuters; Bomfim, C., Andreolla, A. P. & Matoso, F. (9 March 2018). Juiz do DF manda soltar Joesley Batista; empresário deverá entregar passaporte. Furthermore: https://feedbackglobal.org/wp-content/uploads/2022/04/JBS-media-briefing-final-with-logo.pdf p.10
61. Kuepper, B. & Warmerdam, W. (2021). JBS Profile – European Subsidiaries. Brands and Financiers, Amsterdam, The Netherlands: Profundo.
62. De Boer, I., van Ittersum, M. (2018). Circularity in agricultural production. Wageningen University and Research, p.25-29
63. Ibidem p. 1-23
64. Poore, J., & Nemecek, T. (2018). Reducing food's environmental impacts through producers and consumers. Science, 360(6392), 987-992.
65. Webpage: Waarin belegt ABP? Online: https://www.abp.nl/over-abp/duurzaam-en-verantwoord-beleggen/waarin-belegt-abp/ viewed June 2022; ABP (2021). Beursgenoteerde beleggingen van ABP. Online: https://www.abp.nl/images/beursgenoteerde-beleggingen.pdf viewed on June 2022
66. This information is publicly available on the Sinergia Bank for Animals website.

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**07.22**