



Animal Sentience and the Need for Greater Animal Protection Laws





Table of Contents

Introduction.....	3
Recommendations of This Paper.....	5
Science and Philosophy of Sentience.....	6
Environmental Incentives	8
Social Incentives.....	9
Social, Economic, and Cultural History and Conflicts.....	10
<i>THRIVE</i> Framework.....	12
Conclusion.....	13
References.....	14



Figure 1. [Photo](#) of Chickens by Brett Jordan



Introduction

There has been a precedent in recent years of increased animal protection laws within some countries across the globe (Ares, 2022), as well as the recognition of animal sentience. Stronger animal protection laws possess significant potential to mitigate the increased environmental, social, and public health threats posed by the mistreatment of non-human animals globally. This includes intensive animal agriculture, pest management, protections for domestic animals and animals used for other purposes. There is global agreement about the need to transition away from intensive animal agriculture, and more towards plant-based agriculture (or even cell-based meat), to curb the environmental impacts of the livestock industry. Furthermore, significant psycho-social implications exist in the way sentient beings are treated. These are relevant to social well-being on an institutional level, for example, laws regarding how we use animals for food, laws regarding pets, and the treatment of animals in other areas. This paper recommends that stronger animal protection laws are required universally if we are to take concerns for the environment and social well-being more seriously, as required by the United Nations [Sustainable Development Goals](#) such as [SDGs 3, 14, 15, and 16](#). The THRIVE Framework, a key data platform recommended by the United Nations Research Institute for Sustainable Development (UNRISD, 2022), demonstrates the importance of stronger animal protection laws through a few of the THRIVE Framework's foundational focus factors. These include [Values-Based Innovation](#), [Strong Sustainability](#), [Finite Resources](#), and [Systems Thinking](#).



Figure 2. [Photo of Child With Buffalo](#) by Duong Quach Tung



Several precedents have been set in recent years, both in legislation cases and in attempts at constitutional changes, whereby animals have been considered as sentient beings that can suffer and should have rights. An example is the [Animal Sentience Bill](#) put before the UK parliament in 2022 and passed as legislation. Some other [approaches](#) also exist within countries such as Switzerland, and the granting of rights in [India](#) and [Pakistan](#). There are systemic and holistic implications to the treatment of animals within society, both environmental and social, and the focus of this is core to the THRIVE Framework. Using the [THRIVE Framework](#), and key Foundational Focus Factors we examine the holistic impacts of inadequate animal protection laws and highlight where improvement is essential, and the incentives to achieve it.

We propose that policymakers make a difference in rectifying this issue by putting animal sentience on the agenda, ultimately expanding animal protection laws more broadly. This is in keeping with Values-Based Innovation, a core part of the THRIVE Framework, in which core societal values should be considered within innovation by businesses and governments and is therefore relevant to businesses that can shape the future direction of industry. It is also relevant to Systems Thinking another core element of the THRIVE Framework, given the large-scale interaction of systems, from public health interests linked to intensive farming, to psychosocial impacts linked to the treatment of domesticated animals, from the micro to the macro level. Focus Factors such as Strong Sustainability and Finite Resources are also relevant given the level of conversion of natural areas required to sustain animal agriculture through livestock grazing to fisheries or feed for intensive animal farming.



Figure 3. [Photo of Cow](#) by Lukas Hartmann



Recommendations of this Paper

When advocating for animals, a number of key factors should be considered that relate to key developments in democracy and human rights globally. These largely include the freedom from [cruel treatment](#) which is a core tenet of classical liberal philosophy and a principle standard of human rights (Australian Department of the Attorney General, 2024). The THRIVE Project recognises based on the best science, that these requirements are not exclusive to human beings, that animals also suffer, and that these standards should be expanded to other sentient beings. This is with legal precedent. Rights of personhood have been given to corporations as entities since the late 19th century (Wright, 2016). More immediately, however, is the need to recognise sentience, and ensure better laws are introduced to protect animals from maltreatment. This approach is consistent with the development of liberalism and human rights in which prevention of maltreatment or cruel treatment is a core feature (United Nations Department of Economic and Social Affairs).

The granting of rights of [personhood](#) to animals is an approach advocated by some scholars (Banwell, 2023), and recognising sentient beings, is a natural, legal expansion based on scientific determinants and an evidence-based approach (Ares, 2022). Animals legally classified as having sentience and more so having rights has implications for both the environment and society. At the very least, recognition of sentience in law could mitigate the mistreatment of animals by improving their conditions. This could include minimising their level of captivity, safeguarding their need for recreation, and the right of any animal to basic freedoms.

Where animals are slaughtered for food, the recognition of sentience in law could also ensure the use of the most humane method proven and ensure the process is not preceded by any maltreatment such as factory farming or the use of restrictive conditions.



Figure 4. [Photo](#) of Horse Herding by Zeynep Sude Emek



Science and Philosophy of Sentience

The principal factor defining [sentience in animals](#) is the ability for an animal to suffer, be conscious, and be aware of its surroundings or have ‘phenological consciousness’, meaning to have the capacity for any type of subjective experience ([Browning, et al, 2022](#)). The anthropocentric concept of ‘Natural Rights’ as an early predecessor to human rights, as exemplified within the United Kingdom and the United States Constitution, was expanded upon and challenged by later philosophers such as Jeremy Bentham, and Karl Christian Friedrich Krause. They argued that animals should be given ‘corporeal well-being’ rights and rights to be ‘free from pain’ ([Birnbacher, 2020](#)). This view of natural rights was expanded upon and challenged by people like Mary Wollstonecraft to equalise rights for women. The 19th and 20th centuries saw the expansion of rights for workers ([Australian Human Rights Commission](#)). By natural extension, expanding the notion of rights to non-human animals is consistent with addressing these historical loopholes to natural rights. [Ecosystems](#) may not possess sentience but must be protected as an extension of this, as the sentient beings within ecosystems, which do have sentience, require recognition universally and are systemically connected.



Figure 5. [Photo](#) of Person with Sheep by Giulia Botan

Suffering in any animal can be difficult to prove. The scientific evidence however is clear and compelling. For the last decade and a half, there has been clear consensus by the National Research Council's [Committee on Recognition and Alleviation of Pain in Laboratory Animals](#) in the United States, also supported by various academic studies, that feelings of pain are not limited to mammals but are felt by all vertebrates. This has been further expanded to include [invertebrates](#), such as crustaceans and mollusks. Criticisms about these research findings lack credible evidence to prove or support claims to the contrary. Many responses resisting the idea of fish and invertebrate suffering are largely based on limited assumptions. The ethical implications of findings that show fish and invertebrates can feel pain have led to fierce resistance where they risk impacting areas such as fisheries, and other animal consumption industries ([Elwood, 2021](#)).

Examples of this resistance include claims that pain experienced by other vertebrates and invertebrates is excluded when their neuroanatomy is contrasted with that of humans, however, this conclusion is unsupported ([Braithwaite, et al, 2016](#)). There are also claims that pain responses in experimental studies are merely reflexes. As Elwood notes, responses within [experimental studies](#) have required central processing, and long shifts in responsiveness, which indicates protection over time. This demonstrates that these responses cannot be reflexes, and the data found for crustaceans are broadly consistent with the criteria for pain. The best evidence therefore strongly [supports](#) the idea that both vertebrate and invertebrate animals feel pain and can suffer. Approaches taken by different governments reflect the relevance of research findings (Ares, 2022) and the fact that these types of animals should be prevented from suffering and feeling pain (Conte, et al, 2021).



Figure 6. [Photo](#) of Sheep in Holding Pens by Pixabay



Environmental Incentives

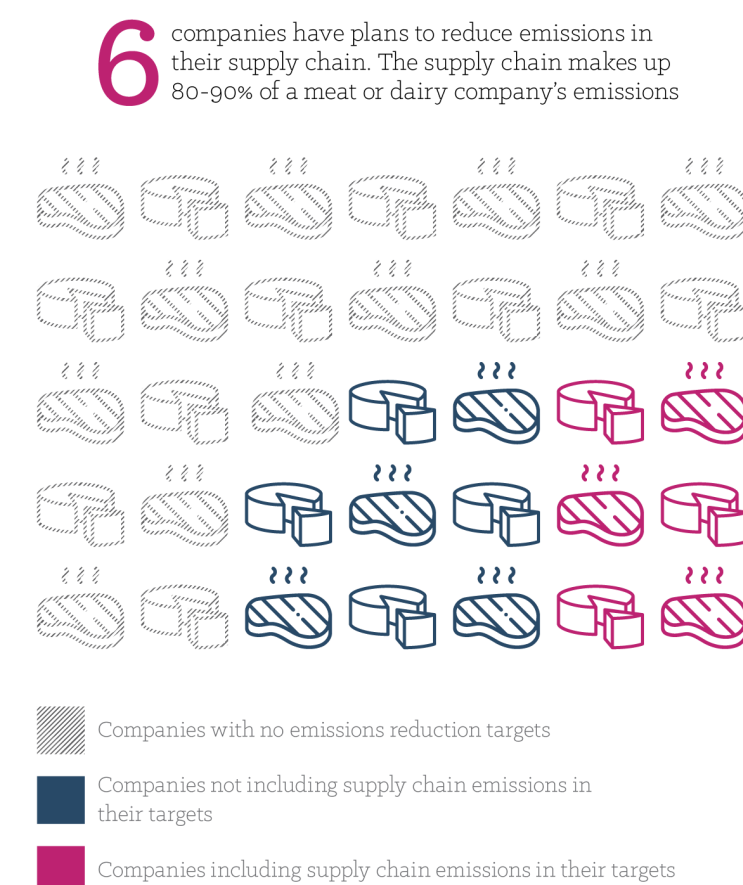
With the vast environmental impacts of intensive animal agriculture, wet markets, and extractive approaches like fishing, it is clear that stronger animal protection laws or recognition of sentience in law can have drastically positive effects on the environment. Animal agriculture requires significant deforestation, land clearing, and water use to feed and maintain factory-farmed animals ([Eisen, et al, 2022](#)). As shown in (Figure 10) the rapid phaseout of animal agriculture would have significantly large benefits in addressing climate change this century compared to business as usual without rapid phaseout. Furthermore, Intensive animal agriculture is the third largest cause of greenhouse gas emissions, and may even overtake oil and gas in this regard ([Grain, 2018](#)). As shown in (Figure 7) from 2018 the top five meat and dairy companies combined produced more greenhouse gases than any of the top three oil and gas companies, and 16 of the top 35 meat and dairy companies did not report on emissions. Additionally, a significant majority of meat and dairy companies do not report on emissions or include emissions in their supply chains.

Animal agriculture such as grazing cattle and fishing trawlers cause biodiversity loss, ecosystem damage, and soil depletion caused by [land conversion](#). The public health impacts linked to intensive animal agriculture and wet markets are a further cause for concern, from aquaculture fisheries ([Done, et al, 2016](#)) to industrial raising of poultry and ruminants, where antibiotic resistance is posing a major threat ([Manyi-Loh, et al, 2018](#)). Increased occurrence of zoonotic diseases is also worrying ([Stel, et al, 2022](#)). Billions of dollars have been spent to mitigate the ticking time bomb of antibiotic resistance ([Economou,](#)

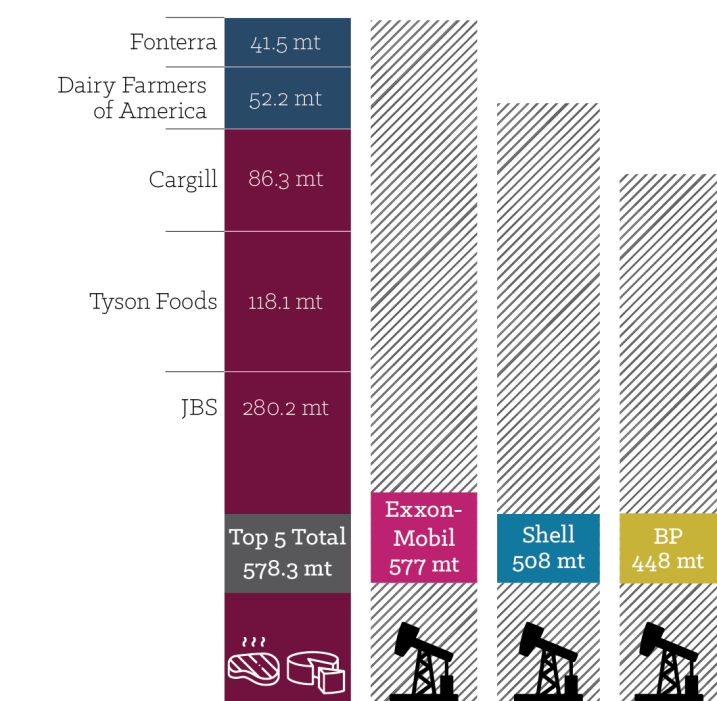
[et al, 2015](#)) with similar investments needed to combat the threat of zoonotic diseases ([Liebler, et al, 2009](#)). Antibiotic resistance will result in significant public health issues and expenditures ([O’Neill, 2016](#)). We can address these issues by eradicating the conditions which cause them; namely intensive animal agriculture.

The THRIVE Framework areas of [Strong Sustainability](#) and [Finite Resources](#) are relevant here. They highlight how the approach to animal agriculture is largely based on an extractive approach exceeding regeneration. Huge-scale deforestation, ocean depletion, waste run-offs, pollution, and extreme water use are consequences of animal agriculture and fisheries. When we add the public health implications, this highlights factors relevant to [Systems Thinking](#), such that intensive animal agriculture or wet markets even in just one regional area have massive global implications.

FIGURE 9C: Emissions reduction targets of the top 35 meat and dairy companies



The top 5 meat and dairy companies combined emit more greenhouse gases than ExxonMobil, Shell or BP



Sources: GRAIN & IATP. See Appendix, Methodology Note, section B; Griffin, Dr. Paul, "The Carbon Majors Database: CDP Carbon Majors Report 2017," Climate Accountability Institute, 2017, <http://bit.ly/carbon-majors-report>.

Figure 7. [Emissions impossible: How big meat and dairy are heating up the planet](#) ([Grain, 2018](#))





Social Incentives

There is [legal potential](#) in expanding individual protections to sentient beings, which can be seen in legislation protecting animals from abuse in many countries, from the United Kingdom to Australia ([Kotzman, et al, 2022](#)). Other common law contexts are relevant. As with children, pets can be subject to pet protection orders in family violence cases ([Randour, et al, 2019](#)).

There are also strong links in research between exposure to animal cruelty and abuse, and later development of mental illness as well as trauma in children. Children who witnessed intimate partner violence are more likely to have increased trauma if this was concurrent with animal or pet abuse ([Girardi, et al, 2015](#), [Hawkins, et al, 2019](#)). There is also increased difficulty in addressing trauma later in life where animal abuse exists. There are strong links in criminology between enacting cruelty or abuse towards animals and inflicting abuse upon people ([Smith-Blackmore, 2020](#), [Livingstone, 2001](#)). These facts demonstrate that there is merit in expanding individual rights from humans to include animals or other sentient beings, partly due to the psycho-social impact, and to mitigate trauma ([Ladny, et al, 2019](#)).

The legal precedents and psychological and criminology studies linking animal and human mistreatment mentioned above demonstrate the systemic impact of addressing animal cruelty through better protection laws. We live in an interconnected world in which the interaction of

different systems occurs globally. Stronger animal cruelty laws can impact specific and immediate issues such as the mitigation of child trauma, or crime prevention. They can also have far-reaching societal policy change impacts. In the same way that addressing violence in society, domestic or otherwise, enables a psychologically healthier, more prosperous, and [thrivable](#) society, so too can animal protection laws mitigate mental health issues later in life. [Values-Based Innovation](#) is an area of the THRIVE Framework relevant to policymakers and private sector entities as it recognises the intrinsic value of sentient beings and the emphasis placed on it by much of society. The social implications of better laws reiterate the importance of this as a shared value within innovation and a systemic issue as with Systems Thinking.



Figure 8. [Photo](#) of Gavel by Katrin Bolovtsova



Social, Economic, and Cultural History and Conflicts

In the Anglo-Sphere West and industrialised Northern Europe, the interlinking of animal welfare and human welfare concerns is a historical reality. Social reformers began to strongly promote animal rights and welfare from the late 18th and early 19th century onwards, with the same activists calling for the abolition of the slave trade ([RSPCA, 2024](#)). Bans on vivisection were called for in the late 19th century in the United Kingdom ([Bates, 2017](#)) when corporations were first granted rights. Similar approaches were adopted in other areas, particularly German-speaking parts of Northern Europe.

This is a historical reality, deeply connected to advances in human welfare. It is important to reiterate that the core principles of traditional or classical liberalism and democracy have influenced the world globally, and can apply in different manifestations within different cultures. An example of this is the global abolition of torture. Protecting cultural traditions is an inadequate excuse for stifling universalised animal protection laws. Factors regarding human rights and individual freedom from oppression are promoted by the United Nations apolitically, agnostically, and separately from any given culture with its earliest universal beginnings dating back to 1948 with the UN Declaration of Human Rights.

In the same way that international laws exist to prevent cheap labor and exploitation through slavery, torture, and the taking of human life, irrespective of economic interest, these approaches can and should be applied to animal protection.

The severe environmental damage inflicted by intensive animal agriculture requires stronger animal protection, yet achieving meaningful progress means navigating a complex intersection of ethics, knowledge, and economic incentives. Despite growing public awareness of the ethical and environmental issues surrounding factory farming, powerful economic forces often present roadblocks to change. The global meat market, valued at over USD 1 trillion ([Statista, 2023](#)), exerts significant influence on policy decisions, often hindering the enforcement of regulations that could threaten established business models. For example, the agricultural lobby in the United States spent over \$140 million on lobbying efforts in 2022 alone ([OpenSecrets, 2023](#)), demonstrating the considerable resources deployed to protect their interests.



Figure 9. [Photo](#) of Elephant Foot by Stephan Streuders

Different innovations minimising intensive animal farming have been adopted such as plant-based and cell-based meat. Unfortunately, political and [economic](#) interests, political adherence to such interests, and [political and cultural associations](#) with this issue can [stifle](#) the standardisation of such approaches ([Saha, 2023](#)). This can undermine many systemic and interconnected social, environmental, and economic impacts of this approach. Despite transitioning to plant-based (or lab-grown meat) and plant-based agriculture demonstrating relative neutral projected socio-economic impacts ([Varella-Ortega, 2021](#)).

This disconnect between ecological and ethical imperatives, scientific understanding, and entrenched economic structures creates a substantial obstacle to progress. Transitioning to a system that prioritises animal welfare requires exposing the environmental consequences of current practices, and reconciling ethical arguments with economic realities. Research from the University of Oxford demonstrates that a global shift towards plant-based diets could reduce agricultural greenhouse gas emissions by up to 73% by 2050 ([Poore & Nemecek, 2018](#)), with similar reductions observed in other studies ([Eisen, et al, 2012](#)), highlighting the potential for environmental and ethical benefits to align. Furthermore, fostering a societal shift that recognises the intrinsic value of sentient beings beyond their economic utility is critical. A 2020 Gallup poll indicated that 32% of Americans believe animals deserve the same rights as humans ([Gallup, 2020](#)), signaling a growing trend of recognising the inherent worth of animals. Supporting the development of alternative protein sources, promoting humane conditions such as free range, pre-stunning at slaughter, and encouraging transparency within the food system represent tangible steps towards a more sustainable and compassionate future.

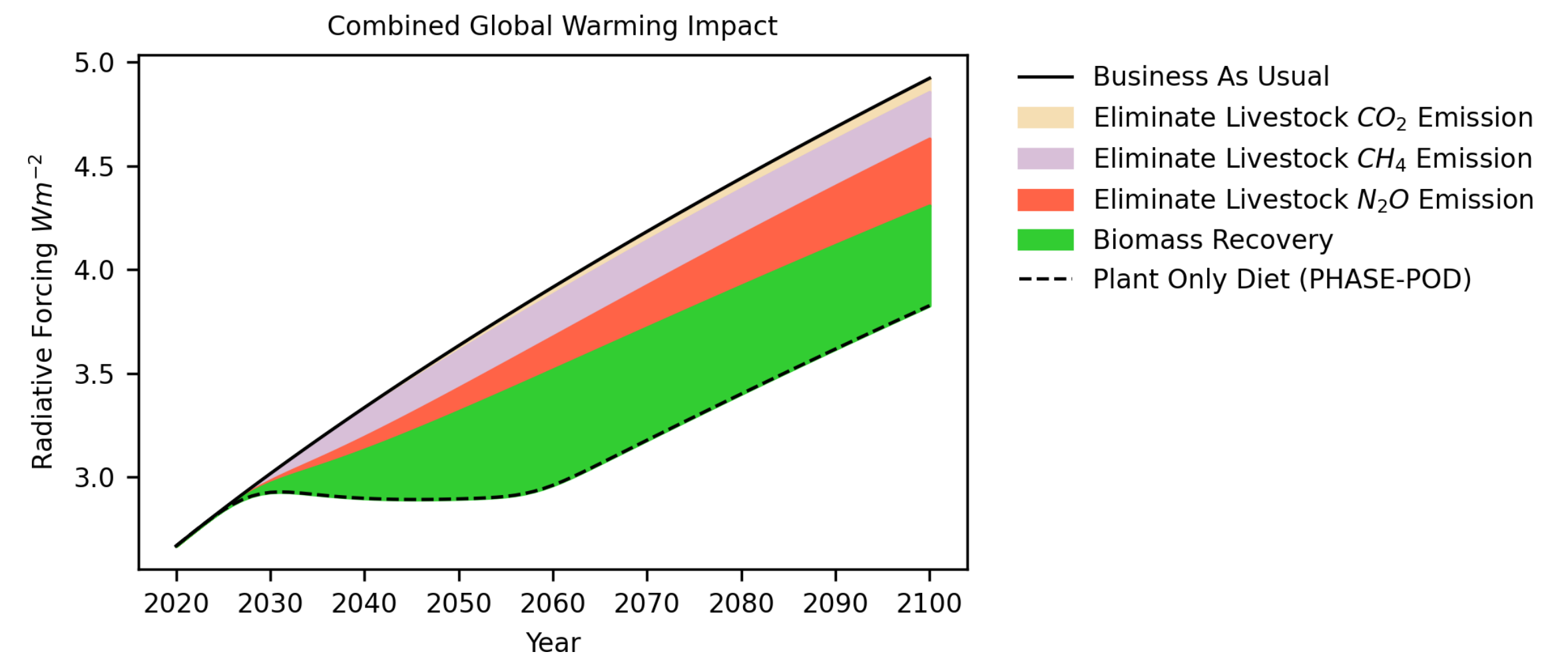
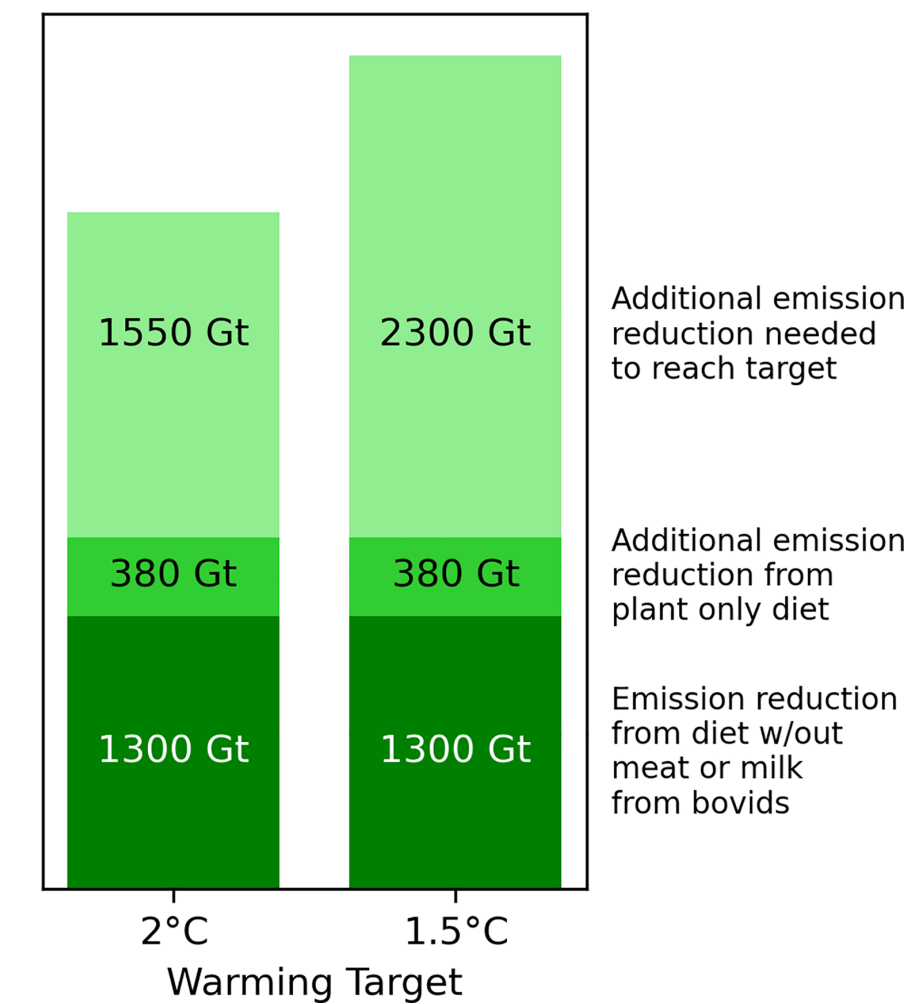


Figure 10. [Rapid global phaseout of animal agriculture has the potential to stabilize greenhouse gas levels for 30 years and offset 68 percent of CO₂ emissions this century \(Eisen, et al, 2022\).](#)



THRIVE Framework

The introduction of stronger animal protection laws will make it possible to address and mitigate many social issues on a psychosocial level, due to the immense harm animal mistreatment has on individuals developmentally. This approach would enable systemic benefits, as reflected by [Systems Thinking](#), a Foundational Focus Factor within the THRIVE Framework ([Fedeli, 2021](#)), which recognises the interconnectedness of systems from the policy level down to the creature level. Stronger laws can also address many extreme environmental impacts caused by intensive animal farming, including deforestation, pollution and waste runoffs, extreme water use, and ocean and land depletion.

Stronger protection laws are also relevant in the context of THRIVE's [Finite Resources](#) and [Strong Sustainability](#) Foundational Focus Factors. These laws would help to reduce the impact of exploiting finite resources required for the use of animal resources through land generation exceeding extraction. [Values-based Innovation](#) is another aspect of the THRIVE Framework which promotes that innovation by businesses and governments should reflect shared social and environmental values. The concern for the suffering of other sentient beings is undoubtedly one of these shared values within society as reflected by recent polls ([Gallup, 2020](#)).

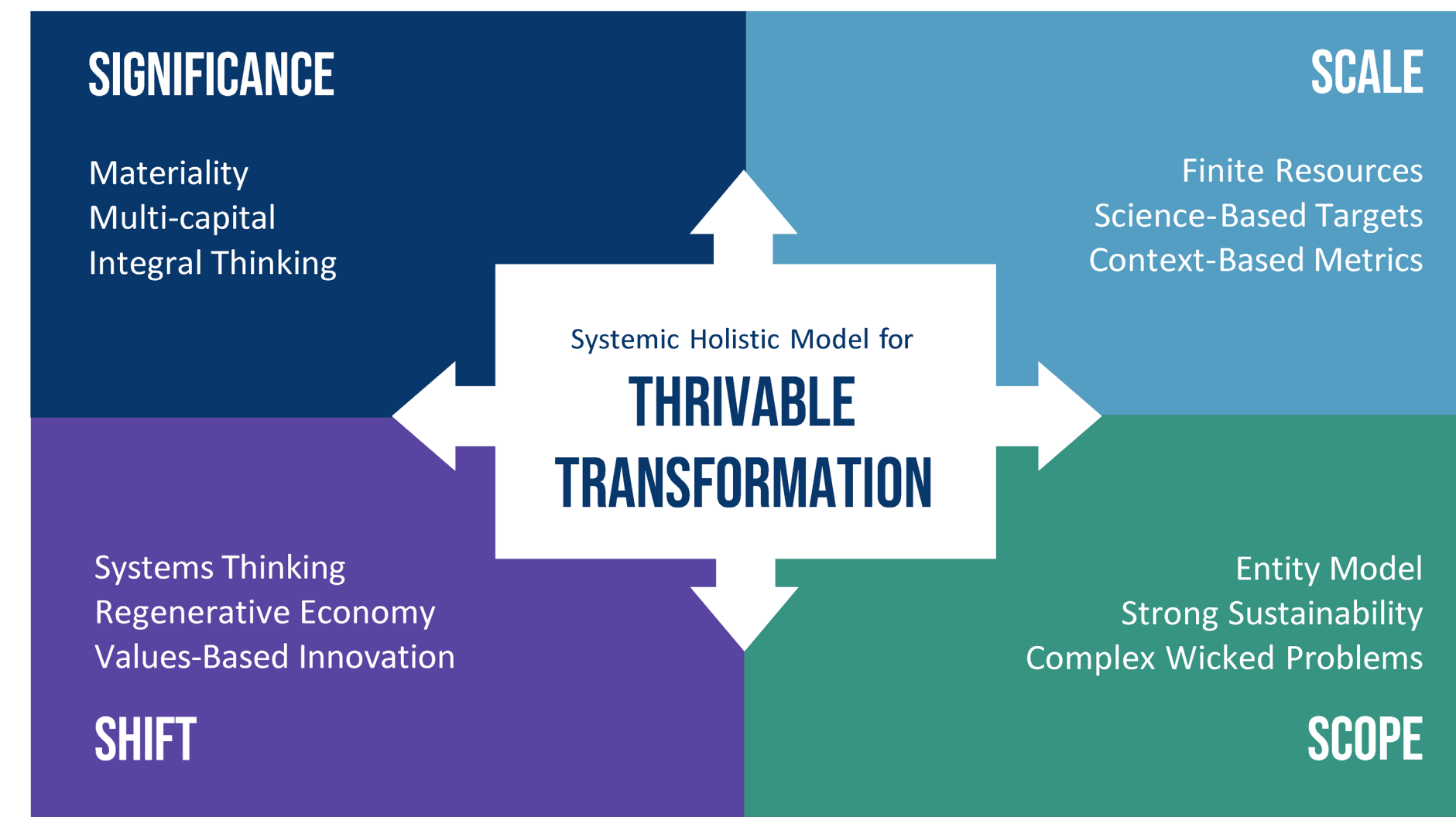
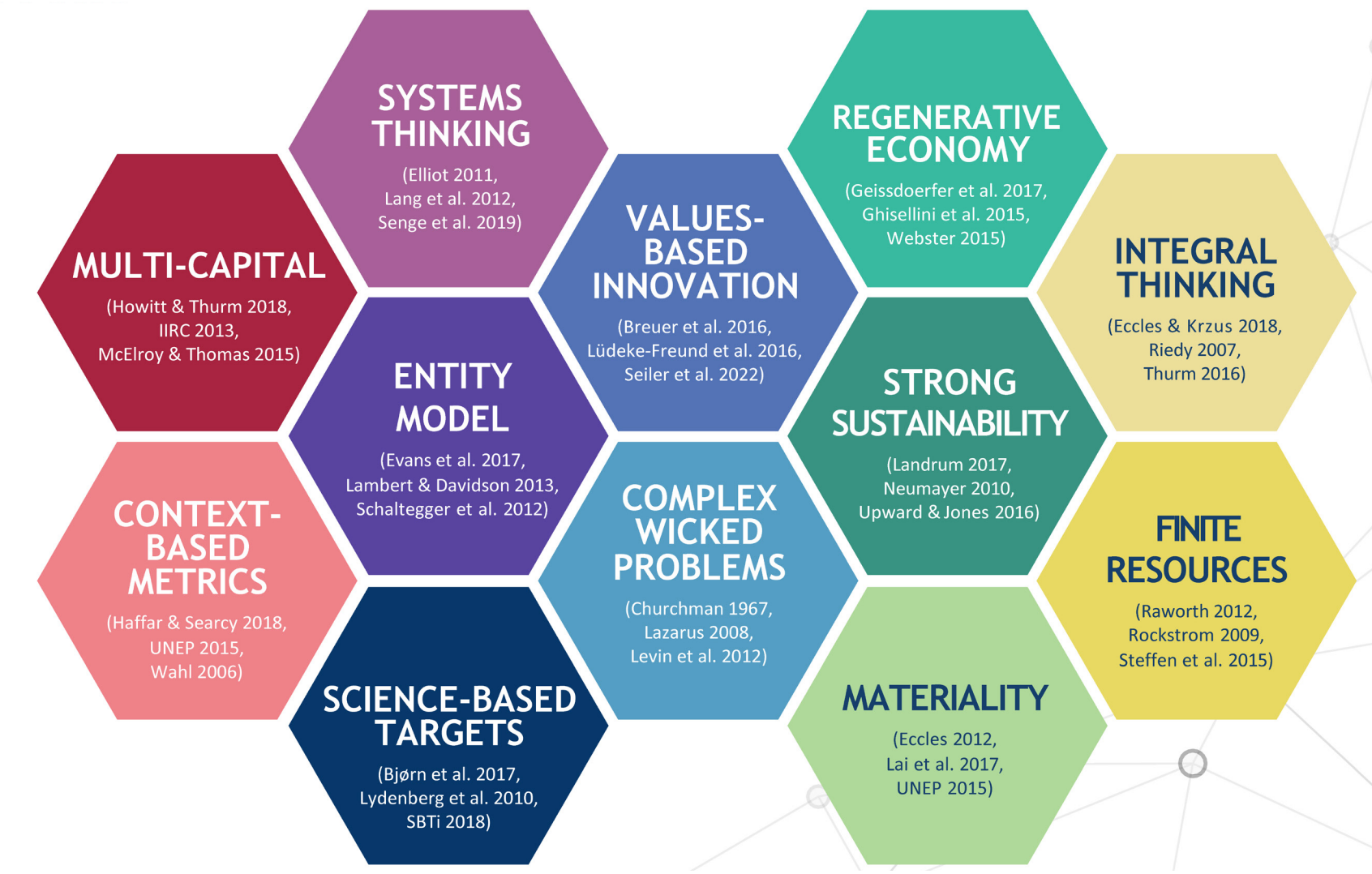


Figure 11. The THRIVE Framework's 12 Foundational Focus Factors, and their relationship to one another.



Conclusion

There are several tangible solutions for this issue of animal welfare protection. Firstly, where human interests, through the consumption of animals, or the use of animals for resources exist, governments must acknowledge the best science and mitigate intensive farming efforts. Commercial endeavors promoting plant-based meat and animal substitutes should be subsidised, and any legal attempts to block such commercial endeavors need curtailing for the interests of society, sentient beings, and the environment.

Secondly, legal precedents provide a basis for future change in the right direction. Examples include High Court Rulings and Constitutional changes in India and Pakistan which have granted legal rights to animals ([Sparks et al, 2020](#)). The Animal Sentience Bill passed in the United Kingdom in 2022, led to the recognition of all non-human vertebrates, any cephalopod mollusk, and any decapod crustacean ([Aeres, 2022](#)), marking a significant step towards recognising personhood by recognising sentience as exemplified by science in law. This is particularly relevant to cases where animals interact with or are used by humans. Switzerland has also introduced laws banning inhumane practices, providing a simple approach for other countries to adopt.

A third solution can be found in an international law approach, which seeks to mitigate the drawbacks internationally between jurisdictions ([Peters, 2020](#)). A fourth solution is to encapsulate the sentience of animals, and personhood rights, within the United Nations SDGs (Sustainability Development Goals) as the protection of non-human animals intersects strongly with other environmental and social interests, from climate change and biodiversity loss to social well-being. Finally, and importantly, we need to standardise protections of domestic animals and wildlife in areas not used for human interests.



Figure 12. [Photo of Handshake](#) by [Olia Danilevich](#)



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