ISSN 2516-2225

A-LAW
UK Centre for Animal Law

The UK Journal of Animal Law

A Journal of Animal Law, Ethics & Policy

Volume 9, Issue 1, March 2025

ANIMAL RIGHTS
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A-LAW JOURNAL

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EDITOR'S NOTE

This edition is different from previous journals – it contains papers from the last A-LAW conference, in partnership with Birmingham City University. It features papers with an international perspective.

I want to thank Iyan Offer and Carley Lightfoot of Birmingham City University for working on the Journal and of course the authors for their contribution to the work of A-LAW.

A-LAW runs a variety of events designed to meet the needs of practitioners, students, NGO workers and academics. The 2025 conference will take place 4-5 June in Birmingham. It is co-hosted by A-LAW and the Animals, Nature and Society Research Stream at the Centre for Human Rights, Birmingham City University.

Registration is open now at **alaw.org.uk/animal-law-conference**. There promises to be an exciting range of speakers, including a virtual keynote address from Chris Packham.

Jill Williams

Editor

Dilemma between Human and Animal Rights: Perspective from Japan

By Hiroyoshi Aoki

Introduction

In the late 17th century, the United Kingdom established the Bill of Rights, sowing the seeds of the idea of fundamental human rights globally.[1] In the early 19th century, the United Kingdom introduced the world's first statute protecting nonhuman animals through its parliamentary system.[2] These groundbreaking developments spread to other countries, such as the United States, France, Germany, and even reached Eastern nations like Japan.[3] Today, the United Kingdom could be regarded as a model country that supports both animal and human rights simultaneously.[4]

However, some have argued that animal and human rights are contradictory. Richard Epstein, a well-known American legal scholar, claimed that animal rights pose a danger to the protection of human rights,[5] in response to the growing concern over animal rights arguments among legal scholars in the United States during the early 2000s.[6] He and other scholars with similar views often highlight significant economic impacts and raise slippery slope concerns.[7]

In a recent case in the United States involving an animal rights organisation suing a zoo for the release of an elephant, the judges of the New York Court of Appeals similarly warned of the potential ramifications of granting a writ of habeas corpus on behalf of the animal.[8] The court expressed apprehension regarding the 'enormous destabilising impact on modern society' that such recognition might provoke, citing risks such as disruptions to property rights, the agricultural sector, and medical research.[9] Additionally, the court highlighted the 'grave difficulty' courts would face in addressing the 'inevitable flood of petition' that would likely follow the establishment of such a legal precedent.[10]

In a similar vein, Richard A. Posner has likened the recognition of animal rights to 'asking judges to set sail on an uncharted sea without a compass,' thereby reflecting the profound challenges and uncertainties inherent in adjudicating such claims.[11] He also draws attention to the Nazis' animal protection policies, which were weaponised as tools of severe oppression against Jews and individuals with disabil-

1 Bill of Rights 1689, 1 Will & Mar Sess 2, c 2. Even in standard texts of Japanese constitutional law, the Bill of Rights is regarded as the emergence of the concept of human rights. See Nobuyoshi Ashibe, Constitution (8th edn, supplemented by Kazuyuki Takahashi, Iwanami Shoten 2023) 78 (in Japanese).

2 Martin Act 1822, 3 Geo. 4, c. 71. 2. See Richard D Ryder, Animal Revolution: Changing Attitudes towards Speciesism (Berg 2000) 79; Thomas G. Kelch, 'A Short History of (Mostly) Western Animal Law: Part II' (2013) 19 Animal L 350.

3 As depicted from the Martin Act to the Japanese Animal Protection Law, see Hitoshi Aoki, Comparative Legal Culture of Animals (Yuhikaku Publishing 2002) (in Japanese).

4 From the perspective of modern human rights development, leading Japanese constitutional scholars such as Yoichi Higuchi have long regarded the United Kingdom, France, Germany, and the United States as model liberal democratic states, particularly in legal education and comparative constitutional studies in Japan. See Yoichi Higuchi, Comparative Constitutional Law (completely revised 3rd edn, Seirin Shoin 1992) (in Japanese). Additionally, the United Kingdom, in particular, can be recognised as a pioneering country that first adopted anti-animal cruelty legislation and animal welfare doctrines, such as the 'Five Freedoms' and the '3R principles,' on a global scale. See Mike Radford, Animal Welfare Law in Britain: Regulation and Responsibility (Oxford University Press 2001).

5 Richard A Epstein, 'The Dangerous Claims of the Animal Rights Movement' (2000) 10 Responsive Community 28.

6 See Martha C Nussbaum and Cass R Sunstein (eds), Animal Rights: Current Debates and New Directions (Oxford University Press 2004).

7 As other scholars, for example, see Richard L Cupp Jr, 'Animals as More than Mere Things, but Still Property: A Call for Continuing Evolution of the Animal Welfare Paradigm' (2016) 84 University of Cincinnati Law Review 1023, 1044; and Nicholas H Lee, 'In Defense of Humanity: Why Animals Cannot Possess Human Rights' (2014) 26 Regent University Law Review 457, 484.

8 Nonhuman Rights Project, Inc. v. Breheny, 38 N.Y.3d 555 (N.Y. 2022).

9 Ibid 573.

10 Ibid 574.

11 Richard A Posner, 'Animal Rights' (2000) 110 Yale Law Journal 527, 533.

ities.[12]

In Japan, many constitutional scholars share a similar perspective. Among them, the concept of animal rights is generally not seen as a significant issue.[13] Instead, it is often regarded as a threat to the protection of human rights, which is the prevailing view. In this paper, I argue that this tendency among Japanese constitutional scholars is related to Japan's historical and cultural background, particularly the process by which the ideas of human and animal rights were introduced from the West to the East.

While these concerns about a slippery slope have validity, there are also merits to recognising animal rights (or their individual interests).[14] I argue that, at least from the perspective of a Japanese constitutional scholar's theoretical framework, human rights and animal rights are not necessarily always in contradiction. In fact, they may share more similarities than differences. Paradoxically, a critical examination of Japanese arguments opposing animal rights reveals these underlying similarities. Japanese arguments opposing animal rights are underpinned by the pervasive theory of the 'inflation of human rights,' originally proposed by Yasuhiro Okudaira. His human rights theory aimed to strictly establish the scope of constitutional fundamental human rights by employing political philosophy. Surprisingly, or perhaps precisely for this reason, his approach to human rights shows similarities with Steven Wise's advocacy for expanding fundamental dignity rights to animals. By focusing on this similarity, we can explore the possibilities, limitations, and variations in approaches that allow for the compatibility of both animal and human rights.

Japanese constitutional scholars and human rights

In Japan, the concept of human rights was formally adopted into law in 1889 during the Meiji Restoration with the establishment of a modern monarchical constitution.[15] At that time, Japan, under pressure from imperialist powers, recognised the necessity of creating a modern constitution.[16] However, due to this foreign pressure, modern legal concepts such as human rights were not fully internalised, leading to a somewhat superficial adoption. For instance, Japan adopted a monarchical system where the emperor held sovereignty,[17] and the people had rights and duties only as loyal subjects,[18] drawing inspiration from the Prussian constitution.[19] The practice of the Meiji Constitution was not only undemocratic but also lacked a genuine commitment to human rights. In terms of the legal text, its commitment to human rights was comparatively weaker than that of the recent constitution.

12 Ibid 535-536. Also, Jessica Eisen, an expert in comparative constitutional animal law across various countries, reveals that in some nations, animal protection clauses of domestic constitutions are used to oppress minority groups. See Jessica Eisen, 'Animals in the Constitutional State' (2018) 15 International Journal of Constitutional Law 916-918. For a broader discussion on the regulation of ritual slaughter, see Jeremy A. Rovinsky, 'The Cutting Edge: The Debate over Regulation of Ritual Slaughter in the Western World' (2014) 45 California Western International Law Journal 79.

13 In the traditional old Japanese constitutional textbook by Shiro Kiyomiya, he referred to the animal protection provision in the Swiss Constitution at the time (prohibiting certain slaughter methods targeting Jewish people) in the context of explaining that the substantive definition of 'constitutional law' should not encompass any content unrelated to state institutions and fundamental rights. He thought that the Swiss Constitution of that period made a mistake by providing such a rule, as it addressed animal protection which he considered to fall outside the proper scope of constitutional law. See Shiro Kiyomiya, Constitution I (new edn, Yuhikaku Publishing 1971) 7 (in Japanese). Kiyomiya's argument has been frequently cited by other Japanese constitutional scholars. For example, Yoichi Higuchi, in his recent work, acknowledges Kiyomiya's example. See Yoichi Higuchi, Constitution (4th edn, Keiso Shobo 2021) 6. While Higuchi questions whether Kiyomiya's animal protection example should be excluded from constitutional law, his scepticism stems from the context of the Swiss provision potentially suppressing Jewish people. Higuchi argues that the provision may relate to matters of fundamental rights, specifically religious freedom. However, Higuchi also maintains that the issue of 'animals' itself does not constitute a constitutional matter. Higuchi's perspective will be discussed further in Section III.

14 Saskia Stucki, 'Towards a Theory of Legal Animal Rights: Simple and Fundamental Rights' (2020) 40 Oxford Journal of Legal Studies 533, 553–559, highlights several merits of recognising animal rights. These include the procedural advantage of addressing issues such as standing and enforceability, the substantive benefit of properly weighing the interests of non-human animals within proportionality tests in court, the fallback function of providing a safety net and establishing a baseline, and the transformative function of guiding society towards an ideal future framework for animal law.

15 Nobuyoshi Ashibe (n 1) 18.

16 Okudaira Yasuhiro, 'Forty Years of the Constitution and Its Various Influences: Japanese, American, and European' (1990) 53 Law and Contemporary Problems 48.

17 Constitution of the Empire of Japan 1889, art. 1.

18 ibid arts 18-30.

19 Yukio Matsui, 'Characteristics of the Japanese Constitution: An Overview' (2015) 26 King's Law Journal 189.

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The shift from a superficial to a more deeply committed approach to human rights in the legal text occurred after the Second World War, with the establishment of the Constitution of Japan in 1947.[20] Under indirect governance by the United States, Japan was compelled to reform its constitution in a manner more aligned with human rights principles.[21] As a result, the Japanese Constitution today includes a comprehensive list of human rights encompassing modern freedoms (such as freedom of speech, religious liberty, personal liberty, and freedom of economic activity)[22] as well as more contemporary social rights (such as the right to maintain a basic standard of living in terms of health and culture, the right to education, and labour rights).[23] While the emperor still exists, his role has fundamentally changed; sovereignty now resides with the people, and the emperor is a symbolic figure with no political power.[24] The principle of the separation of powers also gained strength, particularly to protect minority rights, with the introduction of systems of judicial review in general legal courts.[25]

However, partly because the constitution was created under indirect rule of the United States, it is debatable whether the Japanese people fully accept and commit to constitutional democratic values. The dominant political party continues to propose revisions to the constitution in a more conservative direction,[26] voter turnout remains low,[27] and there is little change in the ruling party.[28] Despite the

20 Constitution of Japan 1947 arts 10-40. See also Nobuyoshi Ashibe (n 1) 35.

21 Nobuyoshi Ashibe (n 1) 22.

22 Constitution of Japan 1947, arts 13-24, 29-40.

23 Ibid arts 25-28.

24 Ibid arts 1-8.

25 Ibid art. 81.

26 Kenneth Mori McElwain and Christian G Winkler, 'What's Unique about the Japanese Constitution? A Comparative and Historical Analysis' (2015) 41 Journal of Japanese Studies 249. In their article, McElwain and Winkler point out that there have been recent arguments from a more constructive direction.

27 Ministry of Internal Affairs and Communications, 'Turnout Rates for National Elections' https://www.soumu.go.jp/senkyo/senkyo_s/news/sonota/ritu/index.html accessed 10 January 2025 . For the last 10 years, the voter turnout in national parliamentary elections in Japan has remained below 60%.

28 In democratic theory, the realistic possibility of alternation in power is considered a fundamental principle, as it ensures accountability, prevents political stagnation, and fosters responsiveness to voter preferences. See Robert A Dahl, Polyarchy: Participation and Opposition (Yale University

existence of a system of judicial review of legislation, the number of judgments ruling that a legislation is unconstitutional remains low.[29] Public knowledge of human rights may be limited because these ideas are not deeply rooted among the populace. Post-war Japanese constitutional scholars believed that the lack of commitment to constitutionalism based on human rights as natural rights led the pre-war Japanese government to the Asia-Pacific War. Therefore, the pre-war Japanese government aimed to raise public awareness of human rights in the early post-war years.[30]

Thus, Japanese attitudes towards human rights differ between academic constitutional scholars and political society, including the general populace. While human rights are accepted in political society and among the public, they are not deeply ingrained. Among academic constitutional scholars, however, there has been a sustained effort to promote the principles of human rights towards establishing a normal constitutional state.[31]

Japanese constitutional scholars and animal rights

While Japanese constitutional scholars are committed to promoting the principles of human rights, they typically reject the notion of animal rights. For instance, Yoichi Higuchi, a prominent constitutional scholar, remarked:

> What if we abandon the premise of 'philosophical humanism'=anthropocentrism? In such a scenario, the warning that it would not be surprising for dogs or horses belonging to kings or nobles to be elevated to the status of honourable entities, whilst the humans tasked with cleaning their kennels or stables remain unrecognised, would materialise.[32]

In this statement, he highlights the risks associated with abandoning the premise of anthropocentrism, as it could lead to drawing distinctions among humans. Furthermore, prior to these sentences, he raises concerns that selecting which beings deserve to be considered human could set us on a slippery slope towards eugenics.[33]

More recent papers by other Japanese scholars, particularly those referencing the Basic Law for the Federal Republic of Germany, which includes an article on animal protection, express concerns about the animal rights movement. As this concern, Yasuhiro Fujii emphasised that the adoption of the animal protection clause in the German Basic Law occurred in the context of debates opposing Islamic religious slaughter methods[34]. He also highlighted its resemblance to the Nazi regime's antagonism towards Jewish religious slaughter practices, noting that the Nazis exploited regulations on such practices as propaganda to promote national ethnic consciousness. He warned of the potential for the animal rights movement to degrade human

Press 1971).

On Japan's political condition, see Jordan Hamzawi, 'Old Party, New Tricks: Candidates, Parties, and LDP Dominance in Japan' (2022) 23 Japanese Journal of Political Science 283. Japan experienced a historic change in power in 2009 when the Democratic Party of Japan briefly took control, but the Liberal Democratic Party (LDP) regained its dominant position just three years later. In the general election of October 2024, the ruling coalition lost its majority in the House of Representatives, marking its worst result since 2012, though it retained more seats than any other party.

29 Shigenori Matsui, 'Judicial Review of Restrictions on Constitutional Rights in Japan: Highly Ad Hoc, Contextualized, and Deferential' in Po Jen Yap (ed), Proportionality in Asia (Cambridge University Press 2020) 140-168; David S Law, 'The Anatomy of a Conservative Court: Judicial Review in Japan' (2009) 87 Texas Law Review 1545. Matsui and Law explain why the Japanese court is considered highly conservative. On the other hand, there is some suggestion that Japan is gradually moving towards issuing rulings that strike down laws as unconstitutional in favor of LGBT rights. See Masahiko Kinoshita, Guy Baldwin, and Ayako Hatano, 'Breaking with Conservatism?: A Bolder Japanese Judiciary on the Rights of Sexual and Gender Minorities' (Verfassungsblog, 7 August 2024) https://verfassungsblog.de/japan-supreme-court-same-sex/ accessed 25 November 2024. But even now, there have been only 13 cases since 1947 in which a statute was declared unconstitutional and void.

30 Atsushi Suzuki and Yuichi Deguchi (eds), Images of Post-war Constitutional Scholars (Kobundo 2021) (in Japanese), argues in detail the trajectory of post-war constitutional scholars. Scholars of the younger generation tend to focus more on the analysis of legal theories or precedents compared to older generations.

31 Yasuo Hasebe, Towards a Normal Constitutional State: The Trajectory of Japanese Constitutionalism (Waseda University Press, 2021).

32 Yoichi Higuchi, General Theory of Fundamental Rights (Yuhikaku Publishing 2004) (in Japanese) 67.

33 Ibid 66.

34 Yasuhiro Fujii, 'Constitutional Prehistory of Animal Protection (1)' (2008) 59(1) Waseda Law Journal 397 (in Japanese); Yasuhiro Fujii, 'Constitutional Prehistory of Animal Protection (2)' (2009) 59(2) Waseda Law Journal 533 (in Japanese); Yasuhiro Fujii, 'Cases Surrounding the Amendment of the German Constitution (Basic Law Article 20a) for Animal Protection' (2009) 60(1) Waseda Law Journal 437 (in Japanese).

dignity and expressed deep sympathy with Yoichi Higuchi's theoretical framework on human rights and human dignity.[35]

While Japanese constitutional scholars rarely engage in discussions on animal rights, the prevailing attitude in Japan remains one of sk epticism towards the concept of animal rights. In addition, the absence of an animal protection clause or any explicit textual basis for the protection of nonhuman animals in the Constitution of Japan is one of the reasons for this skepticism.

Interestingly, even Japanese animal law scholars tend to reject the theory of animal rights. Hitoshi Aoki, a pioneer in animal law in Japan, asserts:

Ultimately, whether we can accept animal rights depends on whether they contribute to humans and human society. (…) This conclusion is natural because law is a construct of human society, and law serves as a norm for human beings.[36]

His stance can be interpreted as a form of welfarism, grounded in indirect duty to animals.[37] He reveals that the Act on Welfare and Management of Animals of 1973 was introduced under foreign pressure, particularly during the visit of the Queen of the United Kingdom to Japan as a means to avoid criticism of animal abuse. Therefore, this law is not seen as an introduction of animal rights, nor does it recognise animals as 'sentient beings' with legal interests in the strict sense. Instead, it is viewed as a measure to safeguard the moral fabric of human society by governments and scholars.[38] While the Act on Welfare and Management of Animals has been revised numerous times, there remains a lack of effective and enforceable protection for domestic and laboratory animals under Japanese law. The Act on Welfare and Management of Animals in Japan includes licensing regulations for businesses that handle animals.[39] However, this licensing system applies only to pet-related businesses and zoos, and it does not cover farming or laboratory facilities.[40] Similarly, penalties for animal cruelty are generally interpreted as not applying to farmed or laboratory animals.[41]

Furthermore, he argues that the only practical way to accommodate respect for animal rights is for Parliament to enact legislation treating animals as legal subjects in a fictional, instrumental, and speculative manner—similar to how corporations or ships are treated.[42] Under the general framework of constitutional interpretation and legal precedents in Japan, corporations are recognised as partially enjoying fundamental human rights. Building on this, he suggests that it could be possible

35 Ibid. For an exceptional opinion in support of animal rights in Japan, see Chihiro Asakawa, The National Goal Provision and Social Rights: On Environmental and Animal Protection (Nippon Hyoron Sha 2008) (in Japanese). Asakawa also studied the revision of the Basic Law for the Federal Republic of Germany, introducing more supportive arguments regarding animal protection in Germany. And he proposes interpreting provisions of the Constitution of Japan to support nonhuman animal rights.

36 Hitoshi Aoki (n 3) 270.

37 Kant and other early modern philosophers explained that the reason animals should be protected is not because of the animals' own interests, but rather because of the moral implications for society. In animal ethics, this concept is referred to as 'indirect duty'. See Robert Garner, Animals, Politics and Morality (Manchester University Press 2004) 13. Kant argued that cruelty towards animals could desensitise individuals. See Immanuel Kant, Lectures on Ethics (Louis Infield tr, Methuen & Co 1930) 239.

38 Ministry of the Environment, Guidelines on Responses to Animal Abuse and Related Issues (2022) https://www.env.go.jp/nature/dobutsu/aigo/2_data/pamph/r0403a.html accessed 9 January 2025 (in Japanese); Hitoshi Aoki, Japanese Animal Law (2nd edn, University of Tokyo Press 2016) 72-75 (in Japanese); Mikami Masataka, 'A Legislative Study on the Legal Interests Protected in Criminal Offences Related to Animal Abuse' (2018) 58 Bulletin of Institute for Law and Religion 74 (in Japanese); and Sakura Minowa, 'The Act on Welfare and Management of Animals 25 Years After Its Enactment: Current Situation and Issues' (2024) 527 Hogaku Kyoshitsu 34 (in Japanese). Minowa emphasised that the Act is not intended to serve the interests of animals themselves. At the same time, in the article, she seeks to bridge Japan's compassion-based approach with Britain's scientific welfarist approach.

39 Act on Welfare and Management of animals, art. 10-24.

40 Ibid art. 10 (animals 'exclude those pertaining to livestock agriculture and those being cared for or kept in order to be provided for use in testing and 'research, use in manufacturing biological preparations, or for other uses specified by Cabinet Order').

41 Ministry of the Environment (n 39) 28 ('The slaughtering of industrial animals, euthanasia procedures, and acts such as culling under the Act on Domestic Animal Infectious Diseases Control (Act No. 166 of 1951) or the Rabies Prevention Act (Act No. 247 of 1950), veterinary practices, animal experimentation, and euthanasia are generally not considered unjustifiable killing or injury, as they are recognised as socially legitimate acts under laws and regulations'). For further details on recent developments in the Animal Protection Law in Japan, see Takashi Makino, 'Reviewing Animal Protection Act revised in 2019' (2021), 26 (1) Heisei Journal of Law and Political Science 249 (in Japanese).

42 Hitoshi Aoki, Japanese Animal Law (2nd edn, University of Tokyo Press 2016) 222 (in Japanese).

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to extend such treatment to animals in an instrumental manner. This indicates that even a leading figure in Japanese animal law does not accept the concept of animal rights as natural rights rooted in the subjective experiences or sentience of individual animals.[43]

Reflecting on the previous section, this phenomenon can be interpreted as an unintended consequence of the emphasis on human rights. Japanese constitutional scholars take the realisation of modern 'human' rights seriously, which is why they view 'animal' rights as a potential danger that undermines human dignity. In a society where human rights are not deeply entrenched, the primary objective of constitutional scholars is to establish and reinforce modern human rights. Their expansion and development could be interpreted as being deferred to a later stage.

'Inflation of human rights' and limiting human rights theory

In fact, not only animal rights but also other new-generation rights are often not fully accepted or effective within the theories of Japanese constitutional scholars. The new-generation rights I refer to here, as defined by public international law scholars, encompass second- and third-generation rights.[44] First-generation rights are essentially negative rights, which require the state to refrain from overreaching. In contrast, second-generation rights are positive rights that require the state to take action to ensure at least a basic standard of living for all individuals in society. While these first- and second-generation rights are intended to apply to individual human beings, regardless of their identity or group affiliation, third-generation rights are more focused on solidarity or collectivity. They are designed to protect certain communities , such as the right to development, the right to an ecologically balanced environment, and the right to

43 Conversely, Steven M. Wise cautions against the use of legal fictions while disregarding factual realities, referring to Bentham's argument. For further discussion, see Steven M Wise, 'Hardly a Revolution: The Eligibility of Non-human Animals for Dignity-Rights in a Liberal Democracy' (1998) 22 Vermont Law Review 793, 882–883.

44 Karel Vasak, 'A 30-Year Struggle; The Sustained Efforts to Give Force of Law to the Universal Declaration of Human Rights' (1977) 30 UNESCO Courier 28-29, 32.

peace.[45]

These second- and third-generation rights have limited impact in the context of judicial review in domestic courts, not only in Japan but also in other liberal democratic countries, where they are not widely accepted.[46] However, what is interesting about Japan is that while there is a push to promote idealised rights that are not deeply rooted in society, there remains a strong emphasis on establishing first-generation rights, with a reluctance to fully endorse the effectiveness of second- and third-generation rights.[47] Japanese constitutional scholars tend to be strongly committed to negative rights, but this support does not always extend to positive rights or collective rights.[48]

This position is understandable because second- and third-generation rights can have significant side effects, potentially requiring a reevaluation of how constitutional rights are structured, similar to the challenges faced during the establishment of the Second Bill of Rights in the New Deal era.[49] It is not surprising that Japanese constitutional scholars, who have deeply studied Western legal theories and histories as an ideal model since the Meiji Restoration, might aim to mirror the historical steps taken by Western countries.[50]

To justify their position, Japanese scholars often refer to the theory of 'the Inflation of Human Rights.[51]' This theory suggests that the effectiveness of human rights diminishes if too many new kinds of human rights are accepted, as this would compromise internal consistency. This concept was coined by Yasuhiro Okudaira, a prominent postwar constitutional scholar who was also involved in social movements against military expansion and introduced political philosophy into Japanese constitutional theory. His position, commonly recognised as a limiting human rights theory,[52] seeks to restrict the subjects and contents of constitutional rights within domestic positive law, and it continues to be respected among constitutional scholars today.[53]

The term of 'the Inflation of Human Rights' is still referenced in standard textbooks on the Constitution of Japan, particularly in the context of interpreting Article 13, which is often used as a basis for recognising unwritten and unstated constitutional rights, such as the right to privacy. These references serve as a caution against the arbitrary interpretation of the article.[54] Naturally, 'the Inflation of Human Rights' applies not only to the interpretation of Article 13 but also to the broader interpretation of all articles in the Japanese Constitution.

Also, 'The Inflation of Human Rights' and its foundation of the limiting human rights theory are not intended to take into account the text of the Constitution of Japan. Rather, Japanese constitutional scholars traditionally do not adhere to a strictly textualist interpretation. Instead, they often adopt a more teleological and purposive approach. For example, at a textual level, it may appear that the articles on individual rights in the Constitution of Japanese presuppose that the subjects of rights are limited to 'Japanese citizens.' However, by adopting the teleological and purposive approach, these scholars interpret 'Japanese citizens' broadly to include foreigners or organisations.[55] Nevertheless, under the influence of the limiting human rights theory, this flexible approach is not often utilised to make sec-

45 Ibid; See also Burns H Weston, 'Human Rights' (1984) 6 Human Rights Quarterly 266.
46 Akhil Reed Amar, 'The Bill of Rights as a Constitution' (1991) 100 Yale Law Journal 1131.
47 Koji Aikyo, 'Modern Human Rights and Contemporary Human Rights' in Koji Aikyo (ed), Subjects of Human Rights (Horitsu Bunka Sha 2010) 6-7, 12-16 (in Japanese).
48 Ibid. On collective rights, see also Yoichi Higuchi (n 32) 69–79, 158–169. Regarding positive rights, early Japanese constitutional scholars regarded the social and economic positive rights in the Constitution of Japan as merely programmatic provisions without judicial normativity, a view also shared by the Supreme Court. See Toshiyoshi Miyazawa, Constitution II (new edn, Yuhikaku Publishing, 1971) (in Japanese) 434–435. However, more recently, some scholars have sought to make positive rights clauses more effective in judicial review, while still broadly accepting the legislature's discretion. See Mayuko Kasai, The Normative Significance of the Right to Life (Seibundo, 2011) (in Japanese); Takeshi Ogata, The Constitutional Structure of the Welfare State (Yuhikaku, 2011) (in Japanese); and Mina Endo, 'The Future of the Social State' (2022) 38 Quarterly Jurist 86, 86–92 (in Japanese).
49 Cass R Sunstein, The Second Bill of Rights: FDR's Unfinished Revolution-- And Why We Need It More Than Ever (Basic Books 2004).
50 Yoichi Higuchi (n 4) 11-23.
51 Yasuhiro Okudaira, 'System of Human Rights and Changing its Contents' (1977) 638 Jurist 243 (in Japanese).
52 Koji Aikyo (n 48) 6-8.
53 Ibid. See below, n 59.
54 Fumio Yasunishi, Misaki Maki and George Shishido, Story of Constitutional Law (3rd edn, Yuhikaku Publishing 2018) 90 (in Japanese).
55 Nobuyoshi Ashibe (n 1) 89-100.

ond- or third-generation rights more enforceable or to recognise the rights of animals.

To better understand the Japanese negative stance on animal rights and its philosophical foundations, it is helpful to examine Okudaira's human rights theory, which is widely referenced by scholars.[56] He articulated his human rights philosophy in the following statement:

Constitutional rights as positive law are not sufficiently justified without the label of fundamental human rights. Fundamental human rights have jurisprudential meanings, which are intertwined with and based on moral-philosophical human rights.[57]

Okudaira believed that constitutional rights as positive law require justification that goes beyond mere text; for him, this justification is philosophical in nature. He understood the concept of fundamental human rights in the text as a mixed concept that encompasses both positive law and philosophical human rights theory. In this way, he emphasised the importance of philosophical human rights theory for constitutional rights as positive law and developed his theory using political philosophy. Importantly, he argued for the application of Alan Gewirth's human rights theory.[58] Gewirth's arguments are based on the premise that someone who has a purpose to do something needs the environment to accomplish their purpose, and what is needed for the environment are human rights, which must be respected at least among those who have a certain capacity for rational judgement.[59] Based on Gewirth's theory, Okudaira limits the legal subjects of fundamental human rights to fully developed persons with a minimum rational ability for judgement, while those with less rational capacity have fewer rights, proportionally depending on their ability to judge.[60] Although this argument not only limits the holders of human rights but also seeks to make certain positive rights of fully developed individuals more effective, it has been criticised for marginalising and ignoring the rights of vulnerable persons by relegating them to the periphery as less-than-average individuals.[61]

Limiting or Expanding: Comparing Yasuhiro Okudaira with Steven M. Wise

Despite their criticisms, Okudaira's human rights theory may imply an expansion of the category of human rights holders to include nonhuman animals. This is because his justification for human rights closely resembles that of Steven M. Wise, a prominent American animal lawyer who has persistently argued for extending fundamental human rights, particularly bodily integrity, to nonhuman animals.[62]

Wise's approach is based on rationality, or what he terms practical autonomy.[63] For Wise, practical autonomy differs from ideal autonomy, such as Kantian autonomy, by being more realistic and rooted in capacities such as consciousness or sentience. He argues that if animals possess practical autonomy, they are sufficiently qualified to enjoy certain fundamental rights, though he emphasises that practical autonomy is not a necessary condition for these rights.[64] He posits that fundamental rights require justification not only as positive law but also as natural rights, particu-

56 As recent papers referencing Okudaira's work, see Ryo Ogawa, 'The Foundations of Judicial Review (3)' (2022) 135(11/12) Journal of the Association of Political and Social Sciences 1048, 1011 (in Japanese); Yusuke Ohno, 'The Human Rights and the Constitutional Rights from the Perspective of the Idea of the Concrete Human and the Social Law' (2019) 43 Keio Law Journal 75 (in Japanese); and Kenta Tsuji, 'Can Welfare Rights Be Founded on Human Nature? On the Significance and Limitations of Alan Gewirth's Human Rights Theory' (2016) 112 Waseda Political and Constitutional Studies 19 (in Japanese).

57 Yasuhiro Okudaira, 'Thinking of Human Rights' in The Development of Postwar Constitutional Scholar (Nippon Hyoron Sha 1988) 123 (in Japanese).

58 Alan Gewirth, Reason and Morality (University of Chicago Press 1978).

59 Gewirth calls his argument the Principle of General Consistency (PGC). See ibid 135.

60 Yasuhiro Okudaira (n 60) 137.

61 Seigo Obata, Human Rights of Those Who Are Not 'full-fledged ' (Horitsu Bunka Sha, 2010) (in Japanese); and Hiroshi Sasanuma, 'On the Contemporary Possibilities of Critiquing Human Rights' (1993) 43 Waseda Law Journal 179-235 (in Japanese).

62 Steven M Wise, Rattling the Cage: Toward Legal Rights for Animals (Perseus Books 2000).

63 In his early writings, Wise referred to this concept as ' realistic autonomy ' but later revised the term to 'practical autonomy '. He argues that an animal is entitled to personhood and basic liberty rights if they can desire, intentionally attempt to fulfil their desires, and possess a sense of self-sufficiency that allows them to understand—however dimly—that they are the one wanting something and they are the one trying to achieve it. See Steven M Wise, Drawing the Line: Science and the Case for Animal Rights (Perseus Books 2002) 32.

64 Ibid 34. See also Steven M. Wise (n 65) 243-48.

larly those derived in a secular, philosophical, and universal manner.[65] Notably, Wise also references Alan Gewirth's arguments in his work.[66] Due to this influence, Wise limits the holders of human rights to autonomous beings and suggests that the scope of human rights should be proportionate to a being's rational abilities. In terms of argument structure and steps of justification, Okudaira's theory is akin to a typical 'expanding' claim to nonhuman animals, similar to Steven M. Wise's approach, despite its apparent 'limiting' implications.

Of course, Okudaira did not advocate for the rights of nonhuman animals. He explicitly wrote, 'Jurisprudence is not concerned with the rights of dogs or cats. All rights in law are enjoyed by humans (or legal persons).[67]' However, Okudaira's theory shares certain similarities with Wise's. Both scholars argue that human rights require philosophical justification that goes beyond the framework of positive law, both establish the holders of human rights by referencing philosophical human rights theories, and both cite the same philosopher, Gewirth, using autonomy as a central criterion. These parallels with Wise's theory that Okudaira's theory could potentially expand the legal subjects of fundamental human rights to nonhuman animals, particularly in the context of negative rights like bodily integrity. In this way, we can detect an 'expanding' dimension within the seemingly limiting human rights theory when considering the breakdown of barriers not based on autonomy, such as the factor of species.

However, this does not mean that limiting human rights theory has no restrictive effect on nonhuman animal rights. Even when discussing nonhuman animals, there are still limiting dimensions. This becomes clear when we consider some criticisms of Wise's animal rights theory. For example, Martha C. Nussbaum has criticised Wise's approach as a 'So Like Us Approach,' which focuses on similarities with humans.[68] She argues that using this approach, we cannot adequately value certain rights specific to the needs of particular animal species, such as the right to echolocation or the right to fly with their own feathers. This criticism reveals the limiting effect of Wise's theory in the context of animal rights. More broadly, it suggests that neither Okudaira nor Wise can fully support fundamental legal rights derived from traits other than autonomy.[69]

To further examine this ambivalence, we can consider another passage written by Okudaira:

> There is an inescapable difference between what we talk about when we discuss the human rights of foreigners or prisoners and what we talk about when we discuss the human rights of children or the elderly. In the former case, it means their average human rights are not adequately protected. But in the latter case, it means they need more rights than full-fledged persons, such as special care for children or particular care for the elderly.[70]

In this passage, Okudaira compares the human rights of foreigners and prisoners with those of children and the elderly. In the terminology of his limiting rights theory, 'average 'refers to the capacity for sufficient judgement to exercise one's own negative human rights. In the case of foreigners or prisoners, they possess this ability, but their rights are often restricted due to factors such as nationality or wrongdoing, rather than a lack of autonomy. The argument, therefore, is to allow them broader exercise of their negative rights, which stem from their autonomy.

On the other hand, in the case of children or the elderly, their inability to fully exercise their rights voluntarily is due to a lack of autono-

65 Steven M Wise (n 44) 843-845.
66 Ibid 898-899.
67 Yasuhiro Okudaira (n 60) 138.
68 Martha C Nussbaum, Justice for Animals: Our Collective Responsibility (Simon & Schuster 2023) 27-34.
69 In addition to animal rights theories based on autonomy, other frameworks have been proposed. For instance, Nussbaum advocates for fundamental legal rights grounded in the capability to flourish as a species. Ibid 95–96. Similarly, Kymlicka and Donaldson propose fundamental legal rights derived from a citizenship approach. See Sue Donaldson & Will Kymlicka, Zoopolis: A Political Theory of Animal Rights (Oxford University Press, 2011), 122–123. Both approaches critique Wise's notion of practical autonomy for setting a relatively high threshold, which renders his criteria overly restrictive and the scope of his theory excessively narrow. Wise himself acknowledged this limitation (below).
70 Yasuhiro Okudaira (n 60) 138.

my. Because of this deficiency, they require special care beyond the traditionally listed negative human rights. Okudaira argues that these rights to special care are 'rights beyond just average rights.[71] 'While he likely did not intend to exclude these special care rights from his constitutional theory, he emphasised that accepting such new rights, like new generation rights, would require justifications beyond those provided by his or Gewirth's limiting rights theory, which was developed for traditional negative human rights, such as first-generation rights.[72]

Conversely, Okudaira suggests that our existing fundamental rights, as listed in our constitution as positive law, largely correspond to human autonomy. This is why Wise can use existing fundamental rights to expand rights holders to autonomous animals like chimpanzees or elephants, but he cannot predict the future direction or overall scope of animal rights, as Nussbaum suggests through her capability approach.[73]

It appears that Wise is aware of the characteristics and limitations of his own theory. He stated:

> The overarching values and principles of traditional Western law – fairness, liberty, equality, and integrity in judicial decision-making – demand that dignity-rights be extended to all qualified to receive them, irrespective of their species.[74]

The correctness or desirability of the overarching values and principles of traditional Western law is beyond the scope of this article. Its purpose is to argue that as long as they remain accepted by legislators and utilized by judges, their benefits should be extended to qualified nonhuman animals.[75]

From these passages, we can see that despite his tendency towards universal philosophical arguments, Wise's theory is temporary, context-dependent, and transitional. For him, the overarching values and principles of traditional Western law are the premise or consensus for existing society. He argues that given these values and principles, we must logically extend traditional negative fundamental rights to qualified nonhuman animals. If the premise or consensus in our society changes, Wise's argument would also change. Here, this premise or consensus refers to society or judges' recognition of the connection between existing fundamental rights and autonomy.

Conclusion: Toward consistency

In this paper, I have examined whether animal rights are inherently inconsistent with human rights, particularly within the context of arguments in Japan of East Asian countries. Japanese constitutional scholars generally view animal rights as opposing human rights. This may be because their primary concern has been the promotion of modern human rights, which have not yet been deeply ingrained in Japanese society or political systems. However, we have explored the possibility that animal and human rights are not inherently contradictory and can, in fact, be understood as consistent by examining the perspectives of Okudaira, a Japanese constitutional scholar, and Wise, a leading American animal rights lawyer. Both scholars utilise Gewirth's framework for the universal justification of human rights and have encountered similar challenges when considering rights beyond existing fundamental rights. Moreover, they both recognise the necessity of developing new justifications that extend beyond autonomy for future rights discourse.

Wise cites Okudaira's work to argue that 'the overarching values and principles of traditional Western law' are not exclusive to the West but are shared, at least in part, with the East, including Japan.[76] While it is uncertain wheth-

71 Ibid 139.

72 Strictly speaking, limiting rights theory advocates for certain aspects of second-generation rights. See Alan Gewirth, 'Economic Rights' (1986) 14 Philosophical Topics 169.

73 Martha C. Nussbaum (n 71) 80-117. It is worth mentioning that Wise values 'capacities as important to their flourishing' similarly to capabilities. See Steven M. Wise (n 44) 884: 'Even the lack of autonomy should not automatically disqualify nonhuman animals from dignity-rights. If they possess capacities as important to their flourishing as our capacities for autonomy and self-determination, they should possess the corresponding dignity-rights.' Here, he implies the existence of fundamental legal rights derived from traits other than autonomy.

74 Steven M. Wise (n 44) 796.

75 Ibid 796 note 8.

76 Ibid 858 note 356; Yasuhiro Okudaira (n 16) 9.

er these values and principles are genuinely reflected in Japanese society or politics, it is clear that Japanese constitutional scholars, particularly Okudaira, were committed to the values and principles of traditional Western law. Although Okudaira did not advocate for animal rights, Wise's citation is pertinent because the primary difference between their views lies in their understanding of the practical autonomy of nonhuman animals as a factual matter. If Japanese constitutional scholars are truly committed to human rights and accept certain aspects of Okudaira's justification theory, there may be potential for greater acceptance of nonhuman animal rights within Japanese legal academia. This recognition could serve as a foundation for reinterpreting and expanding existing constitutional human rights, particularly bodily integrity, to include nonhuman animals and enhance animal protection laws.

Additionally, if Wise's analysis is correct—that societal and judicial recognition of the link between fundamental rights and autonomy can transform philosophical animal rights into legal rights—then countries that are more committed to human rights are more likely to incorporate animal rights into their legal systems. From this perspective, Japan's lack of development in animal rights law might be attributed to its insufficient commitment to and practice of human rights. Conversely, the United Kingdom's strong animal welfare laws could be seen as a result of its long history of advocating for human rights.

Ultimately, if we accept that existing fundamental human rights are at least partly grounded in autonomy, then animal and human rights are not necessarily in conflict. Instead, they share commonalities in their justificatory frameworks. Even if limiting human rights theory is limited to extending traditional negative fundamental rights to animals, there is no need to adopt a single justification exclusively.[77] We should not dismiss other rights justified by different theories based on various attributes. At the very least, recognising the consistency between human rights and animal rights at the level of argument structure can help reconcile the apparent conflict between them. Human rights can sometimes conflict with one another, but that does not invalidate the concept of human rights as a whole. Rather, a well-developed animal rights theory can strengthen human rights theory, making the foundation of fundamental rights more robust and resilient. Furthermore, it can contribute to the promotion of universal fundamental rights on a global scale.

77 For example, we can also employ the capability approach, the citizenship approach or other frameworks from the perspective of overlapping consensus. See Martha C. Nussbaum (n 71) 93-95; Donaldson & Will Kymlicka (n 72) 122–123.

Austria´s Constitutional Court´s Contribution to Animal Welfare – A 17-year transitional period for improved pig farming conditions is unconstitutional

By Marlene Schaffer

The Austrian Constitutional Court has played a significant role in advancing animal welfare, particularly in the context of pig farming practices. In a landmark decision, the court ruled that the 17-year transitional period allowing for the continued use of unstructured fully slatted pens in pig farming is unconstitutional. This decision underscores the importance of animal welfare as a public interest. Despite this progress, the court's ruling leaves room for further improvement in addressing the broader concerns related to pig welfare in Austria.

Introduction

The following article provides an overview and analyses the decision G 193/2023-15, V 40/2023-15[1], made by the Austrian Constitutional Court on 13 December 2023. The main subject of the constitutional review was the question of the constitutionality of a 17-year transitional period for the entry into force of the ban of a certain type of fully slatted floor in pig farming. The Austrian legislator created this ban with the intention of improving animal welfare. In its decision, the Constitutional Court dealt extensively with the question of how this interest in improving animal welfare should be considered when setting a transitional period. The court's findings show that the interest of animal welfare must not be undermined by disproportionately long transitional periods. When determining transitional periods, the interest of animal welfare must be carefully weighed up and taken into account. This decision of the Constitutional Court can also be used as an important legal example outside of Austria, as transitional periods in animal welfare law are no rarity internationally.

The article starts off with an explanation of fully slatted floors and its evaluation from an animal welfare perspective. This is followed by an overview of the ban on so-called unstructured fully slatted pens introduced by the Austrian legislator in 2022. The article analyses this newly introduced ban in terms of its suitability to bring about improvements in animal welfare. It then explains that this ban on unstructured fully slatted pens will only come into force for the majority of operators after a 17-year transitional period. The Constitutional Court was called upon to review the constitutionality of the transitional period and the legality of the ban on unstructured fully slatted pens. The article ends with a concrete analysis of the Constitutional Court's judgement and an appeal to the legislator to take the ethological and physiological needs of pigs into account comprehensively and in accordance with current scientific knowledge when establishing animal welfare regulations.

Pig husbandry on fully slatted floors

Like the legal systems of many other countries, Austrian animal welfare law permits the keeping of pigs on concrete slatted floors. In conventional housing systems[2], pigs are usually kept on fully slatted concrete floors. Conventional pig housing accounts for 96.5% of all pig farms in Austria.[3]

1 VfGH 13.12.2023 G 193/2023-15, V 40/2023-15

2 In the Austrian context, a distinction is drawn between conventional husbandry and organic husbandry. Organic farming businesses must fulfil more than the national minimum requirements of the 1st Animal Husbandry Ordinance. They are required to comply with Regulation (EU) 2018/848 on organic production and labelling of organic products.

3 ´Daten und Fakten Schweinehaltung Österreich´ <https://schweine.at/daten-und-fakten/> accessed 17 August 2024

As the name suggests, fully slatted pens are floor areas with slats. A fully slatted floor consists of alternate solid sections (the slats) and openings through which excrement and urine can pass to a pit below the floor. The openings in the floor are designed to quickly drain the animals' excrement into a slurry channel below. Among other things, this is intended to reduce costs and improve hygiene.[4]

Paragraph 13(2) of the Austrian Animal Welfare Act[5] states that: ´Anyone keeping an animal must ensure that the space available, freedom of movement, floor conditions, structural features of the accommodation and housing facilities, the climate, in particular light and temperature, care and nutrition as well as the opportunity for social contact are appropriate to the physiological and ethological needs of the animals, taking into account their species, age and degree of development, adaptation and domestication.' The aim of the Animal Welfare Act is ´to protect the life and well-being of animals based on the special responsibility of humans for animals as fellow creatures´.[6] Taking this objective into account, the competent federal minister must lay down the minimum requirements for the husbandry conditions specified in Section 13(2) by an ordinance based on Section 24 of the Animal Welfare Act. On this basis, the specific minimum husbandry conditions for pigs were implemented in the 1st Animal Husbandry Ordinance.[7] These national regulations were adopted in implementation of EU Council Directive 2008/120/EC laying down minimum standards for the protection of pigs.

Fully slatted pens entail major disadvantages in terms of animal welfare. By referring to the behavioural repertoire of domestic pigs, attention should be drawn to the fact that the animals have a great aversion to their own excrement and for this reason attach great importance to a clean lying area.[8] Pigs keep the area that they occupy clean and dry as much as possible. If the animals have the choice, faeces and urine are deposited 'only outside the lying and resting area´.[9] As will be described in more detail in later parts of this article, the space available to the individual animals in conventional housing systems is very limited. Due to the lack of space, it is not possible for the pigs to separate their living area into different parts (e.g. a lying area, an excretion area and an activity area).

The necessary characteristics of the floors, the minimum slat width, the maximum width of the openings, as well as the floor area available to each individual animal for unrestricted use, are defined in the 1st Animal Husbandry Ordinance based on the provisions of EU Directive 2008/120/EC. For example, Annex 5 point 2.2.2[10] stipulates that the minimum slat width for weaners[11] must be 50 millimetres. In addition, the floors must be designed and maintained in such a way that the pigs ´do not suffer injury or pain and they must be suitable for the size and weight of the pigs´.[12]

From an animal welfare perspective, it must be emphasised that slatted concrete floors can be associated with discomfort when walking or lying down and associated foot injuries and lameness.[13] Pigs kept on fully slatted floors show more claw injuries and lameness than ones housed on partially slatted or solid floors.[14] In addition, the risk of tail biting is typ-

4 ´Vollspaltenböden´ (Landwirtschaft verstehen 19 May 2023) <https://www.landwirtschaft-verstehen.at/landwirtschaft-fuer-alle/landwirtschafts-abc/detail/vollspaltenboeden> accessed 18 August 2024

5 Animal Welfare Act (Tierschutzgesetz) BGBl I 2004/118 idF BGBl I 2024/124

6 See § 1 Animal Welfare Act.

7 1st Animal Husbandry Ordinance (1. Tierhaltungsverordnung) BGBl II 2004/485 idF BGBl II 2022/296

8 Regina Binder/Rudolf Winklmayer ´Gutachterliche Stellungnahme zur Problematik des Schwanzkupierens bei Schweinen´(2020) TiRuP B-64

9 Regina Binder/Rudolf Winklmayer ´Gutachterliche Stellungnahme zur Problematik des Schwanzkupierens bei Schweinen´(2020) TiRuP B-64
EFSA Scientific opinion, ´Welfare of pigs on farms´ 3.2.1 <https://efsa.onlinelibrary.wiley.com/doi/10.2903/j.efsa.2022.7421> accessed 22 August 2024

10 1st Animal Husbandry Ordinance (1. Tierhaltungsverordnung)

11 Defined under Art 2 point 8 EU Council Directive 2008/120/EC and under Annex 5 point 1 1st Animal Husbandry Ordinance

12 Annex 5 point 2.2.1 1st Animal Husbandry Ordinance (1. Tierhaltungsverordnung)

13 Nicolas Devillers, Xiaojie Yan, Kristopher J. Dick and others, ´Determining an effective slat and gap width of flooring for group sow housing, considering both sow comfort and ease of manure management´(2020) Vol 242 Livestock Science

14 Nicolas Devillers, Xiaojie Yan, Kristopher J. Dick and others, ´Determining an effective slat and gap width of flooring for group sow housing, considering both sow comfort and ease of manure management´(2020) Vol 242 Livestock Science <https://www.sciencedirect.com/science/article/abs/pii/S1871141319316026> accessed 20 August 2024

ically increased on fully slatted floors. That is because bedding substrates may fall through the openings and lead to congestion in slurry tanks and can therefore not generally be provided on fully slatted floors. Accordingly, the animals on fully slatted pens are not supplied with sufficient enrichment materials. Pigs are very intelligent animals and spend a lot of their time exploring their surroundings[15] when they have the opportunity to do so. To be able to fulfil this great desire to explore, they need enrichment material. Inadequate enrichment material can lead to stress, boredom, and dissatisfaction of the animals, which in turn can lead to an increased incidence of tail biting, a behavioural disorder that occurs very frequently on conventional pig farms.[16] Fully slatted floors are also associated with health risks for the pigs' respiratory tracts. This is due to the fact that in the vast majority of cases the lying areas are not closed and therefore not separated from the excretion areas. This way harmful gases (e.g. ammonia) can rise from the slurry channel under the perforated floor and irritate the animals' respiratory tracts and lead to respiratory diseases.[17]

All in all, keeping pigs in fully slatted pens usually does not fulfil their welfare needs.

Introduction of the ban on "unstructured" fully slatted pens in 2022

The Austrian Animal Welfare Package 2022 introduced a ban on so-called unstructured fully slatted pens for the rearing of weaners, breeding pigs and fattening pigs into the Animal Welfare Act and the 1st Animal Husbandry Ordinance.[18] This means that keeping pigs on structured fully slatted floors remains permitted.

A fully slatted floor is referred to as structured if the enclosure is divided into different functional areas according to the animal's behaviour. Structure therefore means that there are separate areas for eating, resting, activity and excretion. With unstructured fully slatted floors, there is no subdivision into functional areas. In addition, the space available for the individual pigs in group housing before the 2022 amendment of the law was so small that they were not given the opportunity to divide their space into functional areas. They were therefore forced to defecate in the lying area.[19] For example, just 0.7m2 of space was legally required for an animal weighing up to 110kg.[20]

Theoretically, structuring the fully slatted floor can be beneficial for the animals. However, this is only the case if the pigs are given sufficient space to actually divide up their living areas and if the floors are not perforated in their entirety but are unperforated especially in the lying area. Solid flooring (without slats) is considered more comfortable for pigs, reflected by a preference of pigs to lie and stand on solid rather than on slatted flooring.[21]

Unfortunately, the structured fully slatted pens introduced by the Animal Welfare Package 2022 do not really lead to significant improvements in terms of pig welfare. This is because the amendment only slightly increases the space available for individual pigs in group housing. Instead of the previous 0.7m2, an animal weighing up to 110kg now has an area of 0.8m2 at its disposal.[22] The space available is therefore still so limited that it is not even possible to effectively divide the pens into individual functional areas. The floor in the animals' lying area can still have openings, but now there have to be slightly fewer openings than before. What is new is that the proportion of openings in the lying area may not exceed 10% of the area. If the lying area has a maximum opening percentage of 10%, it does not have to be closed.[23] If the lying area is not closed and therefore not completely separated from the excrement area, the aforementioned health risks for the respiratory tracts of

15 Regina Binder/Rudolf Winklmayer ´Gutachterliche Stellungnahme zur Problematik des Schwanzkupierens bei Schweinen´(2020) TiRuP B-64

16 EFSA Scientific opinion, ´Welfare of pigs on farms´ 7.7.3.4, 7.7.4.1 <https://efsa.onlinelibrary.wiley.com/doi/10.2903/j.efsa.2022.7421> accessed 22 August 2024

17 Binder, ´Das „Tierschutzpaket 2022" – eine Mogelpackung´(2022) A TiRuP 115

18 § 18 (2a) Animal Welfare Act and Annex 5 point 5.2a 1st Animal Husbandry Ordinance

19 Binder, ´Das „Tierschutzpaket 2022" – eine Mogelpackung´(2022) A TiRuP 115

20 Annex 5 point 5.2 1st Animal Husbandry Ordinance

21 Binder, ´Das „Tierschutzpaket 2022" – eine Mogelpackung´(2022) A TiRuP 115
EFSA Scientific opinion, ´Welfare of pigs on farms´ 7.7.3.3 <https://efsa.onlinelibrary.wiley.com/doi/10.2903/j.efsa.2022.7421> accessed 22 August 2024

22 Annex 5 point 5.2a 1st Animal Husbandry Ordinance

23 Closed in the sense of completely separated from the excretion area

the pigs due to the harmful gases (e.g. ammonia) rising up from the slurry channel below the perforated floor remain.

According to the requirements of Section 13(2) of the Animal Welfare Act, the space available, freedom of movement, floor conditions and structural features of the accommodation and housing facilities must be appropriate to the physiological and ethological needs of the animals, taking into account their species, age and degree of development, adaptation and domestication. Exposure to pollutants in unenclosed lying areas, lying areas made of concrete slatted floors and the limited space available not only endanger the health of the animals and are associated with a risk of injury, but also prevent them from exercising their natural behaviour.[24]

Therefore, the design of structured fully-slatted pens made possible by the 1st Animal Husbandry Ordinance cannot be considered appropriate to the physiological and ethological needs of pigs and does not lead to any major improvement in terms of animal welfare.

Transitional period until full implementation of the ban on unstructured fully- slatted pens led to a complaint before the Constitutional Court

The new regulations banning unstructured fully slatted pens for the housing of weaners, breeding pigs and fattening pigs not only do not lead to any significant improvements[25] in animal welfare but are also subject to a long transitional period until they come fully into force.

The ban has applied since 1 January 2023 for all newly built or voluntarily converted facilities approved under building law from this date. For facilities already in existence before 1 September 2022[26] that were built in accordance with the animal welfare regulations in force until then, a transitional period has been established whereby the ban on keeping pigs in unstructured fully slatted pens will not apply until 1 January 2040.[27] This means that a 17-year transitional period applies to these systems, during which pigs may continue to be kept on unstructured fully slatted floors. The 17-year transitional period led to a complaint before the Constitutional Court.[28]

Burgenland's provincial government[29] submitted an application to review individual provisions of the Animal Welfare Act and the 1st Animal Husbandry Ordinance. Among other things, the provision on the 17-year transitional period was challenged and reviewed for its constitutionality. The Constitutional Court concluded that the regulations on the transitional period are unconstitutional. The remaining applications for a review of the constitutionality of the new regulation concerning fully slatted pens and the legality of individual provisions of the 1st Animal Husbandry Ordinance were rejected.[30]

Despite the rejection of large parts of the applications submitted, this decision is nonetheless an important and, in some ways, revolutionary one. This is based on the fact that there are high barriers for individuals and especially for NGOs to even being entitled to file an application before the Constitutional Court (see next paragraph). Moreover, there are also significant hurdles to obtaining a substantive decision by the Constitutional Court, as in many cases applications are rejected without substantive consideration.[31]

The admissibility of an application for a review of legislation before the Constitutional Court is often subject to strict requirements. While government bodies, like provincial governments are constitutionally granted the right to request a review of federal laws and ordinances without any further requirements,[32] the right of individuals and NGOs to file an application depends on being able to establish

24 Binder, ´Das „Tierschutzpaket 2022" – eine Mogelpackung´(2022) A TiRuP 115

25 For an illustration of the small potential for improvement, see: <https://vgt.at/presse/news/2022/news-20221229mn_2.php> accessed 1 December 2024

26 Date of entry into force of the animal welfare package 2022

27 § 44 (29) Animal Welfare Act

28 VfGH 13.12.2023 G 193/2023-15, V 40/2023-15

29 Burgenland is one of the nine Austrian Federal Provinces

30 VfGH 13.12.2023 G 193/2023-15, V 40/2023-15 Rn 77, 78

31 This is due to the strict admissibility requirements of Art 139 (1) and Art 140 (1) of the Austrian Constitution (Bundes-Verfassungsgesetz BGBl 1930/1 idF BGBl I 2024/89

32 Art 139 (1) 5, Art 140 (1) 2 Bundes-Verfassungsgesetz BGBl 1930/1 idF BGBl I 2024/89

that their rights are directly violated by the unconstitutionality or illegality of the legal act.[33] They therefore have to be norm addresses of the respective provision. Norm addressee is a term used in the Austrian legal system to describe that the contested regulation must be directed at the person contesting this particular regulation, e.g. by granting rights or obligations to that person. ´Only a legal entity to which or against which the contested provision is directed is entitled to challenge the provision´.[34] In relation to environmental protection provisions, the Constitutional Court has already ruled several times that environmental organisations are not addressees of the contested provisions and has therefore rejected their applications.[35]

The severely restricted eligibility of NGOs to submit applications shows how important applications from provisional governments can be and makes the present case all the more interesting.

The Constitutional Court´s Decision

The Constitutional Court partially approved the application of the Burgenland provincial government and declared the regulation providing a 17-year transitional period for the entry into force of the ban on unstructured fully slatted pens to be unconstitutional.

In the ruling, the Constitutional Court emphasises that animal welfare is a recognised and significant public interest. When it comes to the ban on keeping pigs in unstructured fully slatted pens, the public interest in animal welfare is decisive and must be weighed against the interests of planning security and investment protection of the affected agricultural businesses. Transitional provisions are a means of achieving such a balance of interests. According to the Constitutional Court, a transitional provision appropriate to the circumstances may therefore be legally required under constitutional law, 'but must not lead to subjective distinctions and must also be objectively justified, particularly in terms of duration'. [36]

The Constitutional Court clarifies that by introducing the ban on unstructured fully slatted pens, the legislator has made an assessment on the importance of the interest of animal welfare. The definition of the transitional period is intended to serve the 'temporary protection of existing pig farming businesses that have made plans in reliance on the existing legal situation. The Constitutional Court comes to the conclusion that due to the assessment made by the legislator itself in the interests of animal welfare, it is not objectively justified to prioritise the interests of investment protection by setting a 17-year transitional period.[37] The interests of animal welfare should have been adequately taken into account when determining the duration of the transitional period. Because the legislator emphasised the importance of animal welfare while introducing the ban on unstructured fully-slatted pens and considered this interest to be important, animal welfare should also have been adequately taken into account when determining the transitional period. Since this taking into account has not happened, the 17- year transitional period is unconstitutional. The Constitutional Court ruled that it is not objectively justified and therefore not compatible with the principle of equality laid down in the Austrian Constitution to focus unilaterally on investment protection when determining the transitional period and not to take adequate account of the interests of animal welfare.[38]

According to the Constitutional Court's ruling, the 17-year transitional period also leads to objectively unjustified unequal treatment between operators of new or rebuilt livestock facilities and those of livestock facilities that already existed before 2023. This is due to the fact that the 17-year transitional period only applies to livestock facilities that already existed before 2023 and complied with the animal welfare regulations in force at the time. These facilities do not have to implement the ban on fully-slatted pens until 2040. To facilities newly built or converted since 2023 the ban applies immediately. This constitutes objectively unjustified unequal treatment, which is

33 Art 139 (1) 3, Art 140 (1) 1c Bundes-Verfassungsgesetz BGBl 1930/1 idF BGBl I 2024/89
34 VfGH 14.12.2016 V134/2015 Rn 6
35 E.g. VfGH 14.12.2016 V134/2015
36 VfGH 13.12.2023 G 193/2023-15, V 40/2023-15 Rn 61
37 VfGH 13.12.2023 G 193/2023-15, V 40/2023-15 Rn 64
38 VfGH 13.12.2023 G 193/2023-15, V 40/2023-15 Rn 65

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maintained for an excessively long time span due to the 17-year transitional period. Operators of pig farming facilities that newly construct or convert a facility as of 1 January 2023 are subject to higher market entry costs than operators of existing/unconverted facilities. ´This results in unequal competition, which is maintained by the long transitional period of 17 years´.[39] This is another reason why the transitional period is unconstitutional.

The transitional period was therefore repealed as unconstitutional[40]. The repeal of the provision comes into force on 31 May 2025. This means that the 17-year transitional period will continue to apply until 31 May 2025. If no shorter transitional period is legally set by then, the ban on unstructured fully slatted pens will come into force immediately for all operators without a transitional period. A new transitional period is currently being worked on. The minister responsible has indicated that it should now last until 2030 instead of 2040.[41] However, this new transitional period has not yet been legally established at the time of writing this article.

Why the Constitutional Courts contribution to animal welfare could have been more far reaching

By cancelling the transitional period, the Constitutional Court has contributed to animal welfare. In the interest of animal welfare, however, this contribution could have been more extensive. The Burgenland state government not only challenged the transitional period, but also the content of the new fully-slatted pen regulation[42]. The Burgenland state government points out that the new regulation does not lead to any major improvements in animal welfare.[43]

Among other things, the Burgenland state government is therefore also criticising the still low space requirements and the lack of an obligation to simultaneously bed perfo-

39 VfGH 13.12.2023 G 193/2023-15, V 40/2023-15 Rn 69
40 VfGH 13.12.2023 G 193/2023-15, V 40/2023-15 Rn 73
41 <https://kurier.at/politik/inland/vollspalten-boden-verbot-johannes-rauch-2030-schweine/402758047> accessed 22 August 2024
42 Especially Annex 5 points 2.2.2, 5.2a
43 VfGH 13.12.2023 G 193/2023-15, V 40/2023-15 Rn 5

rated floors with straw.[44] The provincial government states that it has been scientifically proven several times that keeping pigs on perforated floors with a lack of bedding does not sufficiently fulfil the ethological needs of the pigs, nor is it suitable for protecting the animals from behavioural disorders. Their needs are also not met by the larger but still inadequate minimum space requirement and the lack of an obligation to provide scattered resting areas. The current minimum requirements result in a lack of space that does not allow the animals to divide their living area into resting and defecation areas. According to the provincial government, these husbandry conditions therefore violate, among other things, Section 13 of the Animal Welfare Act, according to which animals must be kept in accordance with their ethological and physiological needs.[45]

However, the Constitutional Court did not even review these substantive arguments against the minimum requirements and rejected the corresponding applications.[46] The Constitutional Court justified this by stating that the scope of the challenge was too small. A further provision should have been challenged, as it is inseparably linked to the challenged provisions. The Constitutional Court assumed that the Burgenland provincial government generally considers the use of perforated flooring to be unconstitutional and unlawful. Therefore, in the court's view, the provincial government should also have challenged all other provisions of Annex 5 of the 1st Animal Husbandry Ordinance that contain stipulations on the degree of perforation of the flooring. With regard to the challenge of the lack of bedding, according to the Constitutional Court the applicants also omitted the necessary challenge of another provision of Annex 5.[47] The Constitutional Court takes a very narrow view of the scope of the challenge, which must be neither too narrow nor too broad. In addition to the aforementioned restrictions on the right to file an application, the difficulties associated with a challenge before the Constitutional Court become evident.

For reasons of animal welfare, a substantive assessment of whether the new fully slatted pen regulation is appropriate for the needs of pigs would have been desirable. Excessive restrictions in the context of the admissibility assessment make applications for the examination of the legality and constitutionality of legal norms a Herculean task.

Conclusion

The Austrian Constitutional Court's decision on the unconstitutionality of the 17-year transitional period for the ban on unstructured fully slatted pens highlights the importance of balancing different interests when setting transitional periods for the implementation of new animal welfare standards. The interest of animal welfare which lies in the prompt implementation of the new regulations must be balanced against the interests of the farmers in planning security and investment protection. The ruling underscores that animal welfare is a widely recognised and significant public interest. A transitional period that is too long is not compatible with the public interest of animal welfare, which the new regulation on the ban on unstructured fully slatted pens is intended to serve. The Constitutional Court affirmed that the protection of animals cannot be delayed indefinitely in favour of industry interests, especially when such a delay perpetuates harmful conditions for the animals.

However, while the decision is a critical victory for animal welfare, it also highlights the difficulties of challenging legal acts before the Austrian Constitutional Court and how much precision is required to ensure that an application is not rejected. The ruling addressed only the transitional period and did not tackle the more fundamental issues embedded within the current regulations—such as the inadequacy of space allocations, the persistence of partially slatted floors, and the lack of compulsory bedding, which fail to meet the ethological needs of pigs. The Constitutional Court justified this by stating that the scope of the application was too limited. The precise examination of the application and its admissibility is of course essential and stipulated by the constitution and must therefore not be disregarded, but some recent examples show

44 VfGH 13.12.2023 G 193/2023-15, V 40/2023-15 Rn 5
45 VfGH 13.12.2023 G 193/2023-15, V 40/2023-15
46 VfGH 13.12.2023 G 193/2023-15, V 40/2023-15 Rn 78
47 VfGH 13.12.2023 G 193/2023-15, V 40/2023-15 Rn 27

that the Constitutional Court is so meticulous in its approach that it at times functions as a gatekeeper for the clarification of substantive unlawfulness.

Looking forward there remains to be seen how the legislator will implement the decision of the Constitutional Court. A shortening of the transition period is necessary. The legislator has time to implement this until 31 May 2025, otherwise the ban on unstructured fully splatted pens will come into force immediately without a transitional period. A true commitment to improving the living conditions of farm animals requires not just the abolition of problematic transitional periods but also a thorough rethinking of the regulatory framework to ensure it fully meets the physiological and psychological needs of pigs.

In this context, the Constitutional Court's decision can be seen as both a triumph and a call to action. It has removed a significant legal barrier to progress, but the path forward requires a more holistic and urgent commitment to reform.

World Animal Justice: Towards the Legal Protection of Fundamental Animal Rights and the Abolition of Crimes against Animality

By Dr Sabine BRELS, WAJ Founding Director

Abstract

This paper presents the mission statement of World Animal Justice (WAJ), a pioneering initiative dedicated to establishing fundamental animal rights and eradicating crimes against animality on a global scale. Building on decades of progress in animal law, WAJ envisions a transformative legal framework that moves beyond welfare to recognize animals as rights-bearing individuals, fundamentally challenging the legality of institutionalized cruelty and exploitation. Central to this vision is the recognition of "crimes against animality"—systematic acts of harm, including mass killing, zoocide, enslavement, and inhumane treatment—as international crimes prosecutable under a new legal paradigm.

The mission statement explores WAJ's objectives, including proposing an amendment to the Rome Statute of the International Criminal Court (ICC) to include crimes against animality and zoocide. This would align with global efforts to uphold sentient beings' rights to life, freedom, and humane treatment. By addressing the immense scale of animal suffering and proposing enforceable legal mechanisms, WAJ lays the foundation for a future where animals are no longer treated as mere commodities.

This paper articulates WAJ's long-term goals and the moral imperatives driving them, rather than the strategic aspects and methodologies for achieving these objectives. Instead, the purpose of this paper is to set the mission and focus on the need for a new collective vision of a world where justice extends to all sentient beings, advocating a profound shift in global legal and ethical norms as to end systemic animal exploitation.

Introduction

Despite progress in recognising animals as sentient beings, existing legal frameworks fall drastically short of protecting animals from industrial-scale exploitation and suffering. World Animal Justice (WAJ) proposes a transformative global framework that establishes crimes against animality as an international crime, akin to crimes against humanity. This legal shift is essential to protect animals' fundamental rights to life, freedom, and humane treatment, and to end practices that cause avoidable suffering. WAJ's vision advocates a paradigm shift to legally recognise animals as rights-bearing individuals and to end the widely legal animal abuses and crimes perpetrated worldwide.

I. The Evolution of Animal Law: Expanding Beyond Welfare

Over centuries, animal law has evolved from basic anti-cruelty measures to recognising animals as sentient beings. Milestones such as Martin's Act of 1822 and the Cruelty to Animals Act of 1835 in England marked early advances. Today, bodies such as the European Union and the World Organization for Animal Health (WOAH) set welfare standards to reduce suffering in farming, transport, and slaughter. However, these laws are often limited by an anthropocentric basis, which prioritizes human interests and permits institutionalized cruelty on a massive scale.

WAJ advocates for a non-anthropocentric legal framework that moves beyond welfare to recognize animals as rights-bearing individ-

uals. This paradigm shift is essential for protecting animals from systemic abuse by condemning, rather than regulating, exploitation. Recognizing crimes against animality and zoocide—the deliberate extermination of animal populations—is central to WAJ's vision, laying the groundwork for ending widespread cruelty.

II. Defining Crimes Against Animality: A New Category in International Law

WAJ defines crimes against animality as systematic and large-scale cruelty inflicted on animal populations by individuals, corporations, or states. Similar to crimes against humanity under Article 7 of the Rome Statute of the International Criminal Court (ICC), these would include mass killings, torture, enslavement, forced breeding, and other inhumane treatment. Just as crimes against humanity protect human rights, crimes against animality would safeguard animals' rights to life, freedom, and humane treatment.

This concept builds on international law principles, addressing what scholars Anne Peters and Jérôme de Hemptinne call the "vanishing point" of animal protections within humanitarian law[1]. WAJ seeks to close this gap by making crimes against animality prosecutable under international criminal law, creating a legal foundation to recognize and condemn extreme abuses against animals[2].

Legal Precedents and Analogies

WAJ's proposal aligns with international legal principles that address systematic abuses against animals who should be recognized, like humans, as victims deserving justice.

Systematic Nature of the Crimes: Crimes against animality apply to acts that are widespread or systematic, such as factory farming and wildlife trafficking, where animals are systematically harmed for human gain.

Intrinsic Rights of Animals: WAJ emphasizes animals' fundamental rights to live, be free, and be well-treated. Recognizing crimes against animality would formalize protections against severe cruelty, advancing animal law from welfare to rights-based protections.

The Concept of Zoocide: Introduced by Matthieu Ricard, zoocide—the extermination of animal species and populations — is comparable to genocide in its systematic destruction. The universal recognition of Zoocide would contribute to criminalize practices that drive species to extinction, reinforcing WAJ's aim to end actions that devastate animal populations and infringe their right to exist[3].

III. The Scale of Animal Suffering and the Urgency of Crimes Against Animality

The suffering inflicted on animals is immense. Over 200 billion farm animals and millions of wild animals are exploited and killed yearly through factory farming[4], laboratory testing, and other practices[5]. This number rises to the trillions when including aquatic life, such as fish and invertebrates[6]. Factory farming—marked by confinement, mutilations, harsh transport, and slaughter—demonstrates the legal and ethical severity of institutional cruelty[7].

WAJ notes that if the current rate of animal killing were applied to humans, humanity would be eradicated within days. By advocating for the international recognition of crimes

1 Anne Peters, Jérôme de Hemptinne and Robert Kolb (eds), Animals in the International Law of Armed Conflict (Cambridge University Press 2022).

2 World Animal Justice, 'Blog Series' (World Animal Justice) https://worldanimaljustice.org/info/.

3 Matthieu Ricard, A Plea for the Animals: The Moral, Philosophical, and Evolutionary Imperative to Treat All Beings with Compassion (Shambhala Publications 2016)

4 Max Roser, 'How Many Animals Get Slaughtered Every Day?' (26 September 2023) Our World in Data https://ourworldindata.org/how-many-animals-get-slaughtered-every-day.

5 Buesen R and others, 'Trends in the Use of Animals and Non-Animal Methods over the Last 20 Years' (2023) ALTEX - Alternatives to Animal Experimentation https://www.altex.org/index.php/altex/article/view/2874

6 Compassion in World Farming, 'A shocking number of fishes are caught from the wild and around half are fed to farmed animals rather than people, new study reveals' (Compassion in World Farming, February 2024) https://www.ciwf.org/media-news/press-releases-and-media-statements/2024/02/a-shocking-number-of-fishes-are-caught-from-the-wild-and-around-half-are-fed-to-farmed-animals-rather-than-people-new-study-reveals.

7 Rimona Afana, 'From Speciesism to Theriocide: Wildlife Trade and Industrial Animal Farming as Embodiments of the Genocide–Ecocide Continuum' in Wendy Wiseman and Burak Kesgin (eds), Lost Kingdom: Animal Death in the Anthropocene (Vernon Press 2024).

against animality, WAJ seeks to ultimately end practices that reduce animals to mere commodities, affirming their rights to live free from avoidable suffering.

IV. Legal Foundations for Recognizing Crimes Against Animality

The case for international recognition of animal rights and criminalizing animal crimes rests on a strong legal foundation. Animal sentience—the capacity to experience pain, suffering, and pleasure—is widely acknowledged, with approximately four out of five countries having animal welfare and anti-cruelty laws[8], with some countries having recognized animals as 'non-things', but still subjected to the property regime, and other countries having set some constitutional provisions[9].

Yet these laws allow significant loopholes, permitting systemic exploitation in the name of "business as usual" or cultural "traditions," legally harming billions of animals globally. Despite some progressive examples of protection, current laws mostly permit harmful activities, such as factory farming, which would be mostly illegal if applied to companion animals with regards to the content of current anti-cruelty laws. This mirrors the historical acceptance of human slavery, which was once justified as economic necessity, but which is now universally condemned. Just as the abolition of slavery required a reevaluation of entrenched norms, the movement for animal rights demands the abolition of institutional exploitation of animals[10].

Court decisions in Argentina, Ecuador, Peru, India, and Pakistan reflect a growing recognition of animal rights. Courts in Argentina, Ecuador and Peru have upheld the rights of certain animals, particularly great apes and elephants, to live free from mistreatment[11]. India has affirmed cetaceans' rights[12], and Pakistan's judiciary recently recognized an elephant's right to live free from captivity[13]. Such precedents suggest a legal shift toward recognizing animals as rights-bearing beings, especially regarding freedom from cruelty.

V. Establishing an International Framework for Crimes Against Animality

To address systematic harm against animals, WAJ envisions an amendment to the Rome Statute of the ICC to enshrine crimes against animality as a new category of international crime, creating a mechanism to protect animals from large-scale exploitation. This amendment would introduce for instance an Article 7 bis on Crimes Against Animality, establishing animal protection as a global concern. Just as genocide protects human groups, zoocide — the extermination of animal species and populations — would be recognized, affirming animals' right to exist free from human-induced annihilation.

Proposed Amendment to the Rome Statute: Article 7 bis on Crimes Against Animality

Definition: "Crimes against animality" refer to acts committed as part of a widespread or systematic practice, directed at animal individuals, populations, with knowledge of their impact on the welfare of sentient beings and survival:

- Mass Killing: Large-scale killing of animals with aims of suppression or exploitation, including factory farming, industrial

8 See Brels S, Animal Welfare Law in the World: Evolution and Globalization (L'Harmattan, 2017), also published with English abstract online in the Global Journal of Animal Law GJAL 1/2016.

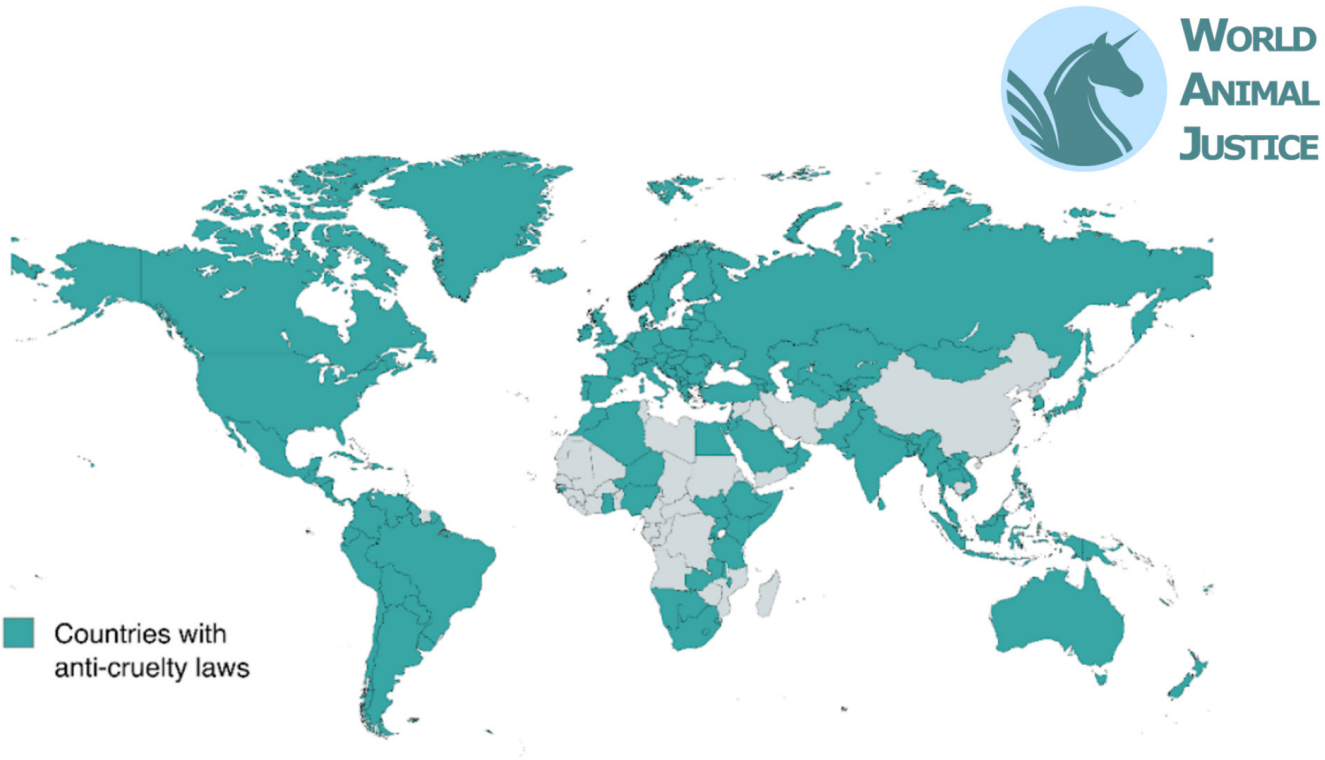
9 Austria Civil Code, § 285a; Germany Civil Code, s 90b; Switzerland Civil Code, Art 641a; Moldova Civil Code, Art 287; Netherlands Civil Code, Book 3, Title 1, s 1, Art 2a; Animal Welfare (Sentience) Act 2022; French Civil Code Art 515-14; Spanish Civil Code Art 333 bis; Danish Animal Welfare Law §1; Sweden Animal Protection Bill; Slovakia Civil Code s 119; Slovenia Civil Code Art 15.a; Columbia Law 1774 Art 1; Animal Welfare Act 1999 (NZ).

10 Giroux V, Contre l'exploitation animale: Un argument pour les droits fondamentaux de tous les êtres sensibles (Éditions L'Âge d'Homme, 2017).

11 Case of Cecilia the Chimpanzee [2019] Argentina Court https://www.bbc.com/news/world-latin-america-50038392 accessed 12 November 2024; Estrellita Case [2021] Ecuador Constitutional Court https://www.nationalgeographic.com/environment/article/ecuador-recognizes-rights-of-wild-animals; Marcia Condoy Truyenque, 'La Sentencia Run Run y los Animales como Sujetos de Derechos en Perú' (29 July 2024) Blog Derecho Animal en Perú https://www.derechoanimalenperu.org/sentencia-run-run.

12 Supreme Court of India Decisions Recognizing Animal Rights https://www.thehindu.com/news/national/other-states/supreme-court-recognizes-rights-of-animals-including-elephants/article31930750.ece.

13 Case of Kaavan the Elephant [2020] Pakistani Court https://www.bbc.com/news/world-asia-55138691.



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slaughter, and trophy hunting.

- Zoocide: Acts intended to destroy, in whole or part, animal populations or species, leading to extinction or danger of extinction, whether through direct poaching, trafficking, habitat destruction, pollutions, or other means.

- Enslavement: Commodification and exploitation of animals as property, depriving them of autonomy, well-being, and natural behaviors, including forced breeding, confinement, captivity and labor exploitation.

- Torture and Inhumane Treatment: Inflicting severe pain or suffering, especially in contexts like laboratory testing, factory farming, and confinement systems, including practices such as live mutilations and painful methods.

- Forced Deportation and Trafficking: Transport or trafficking of animals under inhumane conditions, exposing them to suffering, injury, or death, including wildlife trafficking and live transport violating welfare standards.

- Scope and Jurisdiction: Crimes against animality would be prosecuted as core international crimes under the ICC's jurisdiction or a specialized International Animal Justice Tribunal. This tribunal would prosecute individuals, corporations, and states complicit in systematic animal exploitation, ensuring accountability.

- Inclusion of Zoocide: Zoocide, as a subset of crimes against animality, recognizes the severity of efforts to exterminate animal species and populations, underscoring the right of animals to live free from human extermination.

- Non-Discrimination Among Species: Crimes against animality apply to all sentient species, acknowledging that all sentient beings have a right to life, freedom, and humane treatment.

- Exemptions and oppositions: No exemptions based on cultural or economic practices are allowed when actions constitute

cruelty within crimes against animality. Arguments based on tradition shall not be admissible when they result in unnecessary suffering or deliberate extermination.

Envisioned Impact and Mechanism of Enforcement

WAJ envisions this amendment as a catalyst for a legal framework to protect animals from systematic abuse. Article 7 bis would serve as the foundation for prosecuting international crimes against animals, creating global standards. As a prospective proposal, a new International Animal Justice Tribunal could work alongside the ICC or operate as a dedicated body for prosecuting crimes against animality, ensuring accountability for mass cruelty, exploitation, and zoocide.

This framework would target large-scale violations by industries, organizations, and individuals whose actions harm animals and ecosystems, enforcing standards that prioritize animal rights and ecological balance.

VI. The Broader Implications of Crimes Against Animality

While WAJ's mission is to protect animals' fundamental rights, addressing crimes against animality also supports human and environmental safety. Industrial animal exploitation *WAJ emphasizes that animal protection aligns with the current major global goals, fostering sustainability as a triple win that benefits humans, animals, and the planet.

Recognizing zoocide in international law underscores the urgency to protect animal populations from extermination and extinction. Although WAJ's primary objective is to end animal crimes, protecting animal population also supports individual protection, affirming the interconnectedness of human, animal, and environmental well-being.

Conclusion

World Animal Justice envisions a world where animals are protected from systematic legal cruel and criminal acts. By advocating for crimes against animality and zoocide to be recognized in international criminal law, WAJ aims to propose a new legal framework that respects animals as sentient beings holding protected rights. This framework marks a shift from welfare-based laws to a paradigm that question institutionalized exploitation.

WAJ's mission is not only a call for compassion but also for an enforceable global framework for animal protection. The global prohibition of crimes against animality provides a foundation for a better legal future for animals, protecting their rights as sentient beings. Just as slavery's abolition required reevaluating norms, animal rights demand a similar commitment to end practices causing avoidable suffering to animals. In sum, World Animal Justice envisions a world of universal justice where animals are not left aside anymore, from the moral and legal protection due to all the victims of the worst crimes, that are still lawfully, massively and globally perpetrated against them worldwide. A new legal paradigm of justice for all is needed. It is our responsibility to make it become reality.

Transparency in Animal Research – Time to Look at the Bigger Picture

By Jessie Hellier

Abstract

Animal research has been a contentious subject for many decades. Passionate views about animal welfare and ending animal use in research and testing are balanced against the ongoing need for consumer protection, the advancement of medicine, and the speed of scientific innovation.

Transparency in animal research has therefore been difficult to achieve, with stakeholders such as those conducting or regulating animal research being understandably cautious or reluctant to share information with the wider public. Without adequate transparency, it is difficult to understand where and how animals are being used in research and testing. As a result, it is more challenging to determine where gaps in replacing animals with alternative methods lie and if replacement opportunities are being missed.

In the United Kingdom, the Animals (Scientific Procedures) Act 1986 (ASPA 1986)[1] exists to provide protection for animals used in research and testing, and provide protection to those who use animals. It is not designed to further scientific innovation and the development of non-animal methods. ASPA 1986 is, however, the only legal framework that covers the replacement of animal research, through its inclusion of the 3Rs - replacement, reduction, and refinement.[2] Replacement requires that, wherever possible, a scientifically satisfactory method or testing strategy not entailing the use of protected animals must be used. Replacement by this definition includes not just non-animal approaches, such as in vitro cell-based research, computer modelling, or the use of big data sets, but also the use of a species not protected by ASPA 1986. Reduction necessitates the use of the fewest number of animals that are scientifically necessary. Refinement is to refine experimental procedures, husbandry, and care of the animals used, to reduce their suffering and improve their welfare.[3]

Recent evidence from a 2023 National Centre for the 3Rs (NC3Rs) commissioned report 'The role of review and regulatory approvals processes for animal research in supporting implementation of the 3Rs', clearly shows that replacement of animal research is not being reviewed or challenged as it should within the regulatory processes of ASPA 1986.[4] This is potentially resulting in animal projects being granted licences without sufficient justification for animal use, as opportunities to avoid or replace procedures on animals are being missed.

This article considers how the frameworks of ASPA 1986 could be more robustly implemented to increase transparency around animal research, and some of the barriers that prevent this today. This includes improvements to the 'Annual Statistics of Scientific Procedures on Living Animals in Great Britain' publication, improvements to Non-Technical Summaries (NTS) as part of an animal research project licence application form, and enabling greater analysis of animal research projects by repealing Section 24 of ASPA 1986. We will discuss potential improvements that we have identified as part of our approach at Replacing Animal Research, to strengthen policy around the use of animals in research, particularly areas that could have a considerable impact on transparency. Acknowledging and address-

1 Animals (Scientific Procedures) Act 1986
2 Animals (Scientific Procedures) Act 1986, s 2A
3 ibid.
4 Francis Rawle, 'The role of review and regulatory approvals processes for animal research in supporting implementation of the 3Rs' (February 2023) < https://nc3rs.org.uk/sites/default/files/2023-02/Rawle%20project%20report.pdf> accessed 25 Jul 2024.

ing these issues would improve transparency around decisions to use animals in research, increase public trust, and better inform future work to replace animals.

Introduction

Animal research can be a polarising and emotive subject for many, with varying public opinion around animal welfare and the use of animals in science. Some believe animals should not be used in any research or testing,[5] whilst others accept or endorse the use of animals as necessary for understanding disease and developing new drugs.[6] Meanwhile, many regulators continue to require animal testing data to help prove the safety of new medicines, chemicals, and consumer products. This has caused it to be a contentious issue for many decades.[7] These contrasting ethical views on animal research have led to transparency being difficult to achieve in the public domain. There has, historically, been a reluctance to share animal research information with the public due to high levels of activism from animal rights organisations and those wishing to end animal experiments.[8] Whilst activism has clearly demonstrated an appetite for change, it has also had the unfortunate effect of reducing information and transparency around animal research, for fear of negative responses or retribution.[9] To support the progress of animal-free science and bring effective change, it is important to facilitate ongoing open dialogue and create a framework for increasing transparency without unnecessary judgement.

In the UK, animal research is regulated under the Animals (Scientific Procedures) Act 1986 (ASPA 1986).[10] Whilst ASPA 1986 is often considered to be one of the most stringent pieces of legislation outlining how animals may be used in science,[11] there are flaws around its implementation, which are hampering openness and transparency.

In this article, we will explore issues and avenues to improve the legislation, focussing on the standard of information required by law, and the release of information into the public domain. This includes: (1) Missed opportunities in the 'Annual Statistics of Scientific Procedures on Living Animals in Great Britain' publication; (2) Strengthening non-technical summaries of the project licence application; (3) Section 24 of the Animals (Scientific Procedures) Act 1986.

Acknowledging and addressing these issues would improve transparency around decisions to use animals in research, increase public trust, and better inform future work to replace animals.

The law

In British society, causing unnecessary harm or suffering to an animal is generally not accepted by the public,[12] and is subject to sanction under the Animal Welfare Act 2006.[13] However, animals may be subjected to harm or suffering when used in scientific research or testing. Because of this, legislation exists to outline under what circumstances harm is permitted and steps that must be taken to limit this.

ASPA 1986 regulates the use of protected animals in scientific, educational, or any other experimental procedures that may cause pain, suffering, distress, or lasting harm, higher than, or equivalent to, the insertion of a needle under good veterinary practice. Procedures meeting these criteria are known as 'regulat-

5 Nuno Henrique Franco, 'Animal Experiments in Biomedical Research: A Historical Perspective' (2013) 3 Animals 1

6 Pru Hobson-West, 'The role of 'public opinion' in the UK animal research debate' (2009) 36 JME 46

7 ibid.

8 Elena Link and others, 'Public controversy and citizens' attitude formation about animal research: A case for scholarship and recommendations on conflicts at the science-society interface' (2004) 19 PLoS One e0295503 < https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10763933/#:~:text=Activist%20groups%20attack%20animal%20research,whereas%20scientists%20often%20remain%20silent.> accessed 24 Jul 2024.

9 Larry Carbone, 'Open Transparent Communication about Animals in Laboratories: Dialog for Multiple Voices and Multiple Audiences' (2021) 11 Animals 2

10 ASPA 1986 (n 1)

11 Simon Festing and Robin Wilkinson, 'The ethics of animal research: Talking Point on the use of animals in scientific research' (2007) 8 EMBO reports 526

12 Animal Aid, '71% of people think causing pain and suffering to animals is wrong, Animal Aid poll shows' (animalaid.org.uk, 4 April 2022) <https://www.animalaid.org.uk/71-percent-poll/> accessed 6 January 2025

13 Animal Welfare Act 2006

ed procedures'.[14] Protected animals are those species covered by the legislation, which currently includes any living vertebrate other than man, and, as of 2013, any living cephalopod, such as octopus and squid.[15] The addition of cephalopods was made in line with the EU Directive 2010/63/EU on the protection of animals used for scientific purposes, which states that 'there is scientific evidence of their ability to experience pain, suffering, distress and lasting harm', and should therefore fall under ASPA 1986 protections.[16]

ASPA 1986 outlines a three-tier licensing system, requiring an establishment licence, a personal licence, and a project licence to be held before any research procedure on an animal can be undertaken.[17] Establishment licences are required by any establishment where regulated procedures are carried out, including establishments that breed and supply animals for research.[18] Personal licences are required by anyone who wishes to conduct regulated procedures using animals. This type of licence specifies the work that will be conducted and why.[19] Project licences are required for any research project requiring regulated procedures to be conducted. This type of licence specifies the work that will be conducted within this study.[20]

Failures to address replacement

One of the key failures of ASPA 1986 currently is around ensuring the correct and robust exploration and review of replacement. In their project licence applications, researchers must illustrate how they have explored and adhered to the legal requirement of the 3Rs of replacement, reduction, and refinement, with the principle of replacement being the priority of the three.[21]

Despite the replacement of animal use being a legal requirement where possible, there has been formal acknowledgement that the current legal frameworks and processes are insufficient in ensuring that replacement is being addressed. In October 2022, a UK Home Office review of antibody licences (licences where researchers plan to use antibodies obtained from animals) granted over the previous 5 years showed that 'many licences did not provide sufficient demonstration that it is not currently scientifically possible for the antibodies … to be produced by non-animal methods.'[22] Furthermore, February 2023 saw the publication of an independent report entitled 'The role of review and regulatory approvals processes for animal research in supporting implementation of the 3Rs', commissioned by the Government-funded National Centre for the 3Rs (NC3Rs). This report is based on interviews and surveys with stakeholders within the animal research community and found that 'replacement does not seem to be covered well by any of the review processes.'[23]

Issues with the Animals (Scientific Procedures) Act 1986, and avenues for improvements

1. Missed opportunities in Great Britain's 'Annual Statistics of Scientific Procedures on Living Animals'

The first area of concern relates to the annually published statistics on animal use in Great Britain. Under the ASPA 1986, it is a legal requirement to collect and record data on the use of animals in scientific procedures. This is collated and published by the Home Office annually, in the 'Annual Statistics of Scientific Procedures on Living Animals in Great Britain'.[24] This report outlines several pieces of basic data, including the total number of procedures using animals, the number of proce-

14 Animals (Scientific Procedures) Act 1986, s 2
15 Animals (Scientific Procedures) Act 1986, s 1
16 Directive 2010/63/EU of 22 September 2010 on the protection of animals used for scientific purposes [2010] OJ L276/33
17 Animals (Scientific Procedures) Act 1986, s 2C
18 ibid.
19 Animals (Scientific Procedures) Act 1986, s 4
20 Animals (Scientific Procedures) Act 1986, s 5
21 Home Office, 'Guidance Notes for Project Licence Applications' (February 2024) < https://assets.publishing.service.gov.uk/media/65cb31ff103de2000eb8f33f/Guidance+Notes+for+Project+Licence+Applications.pdf> accessed 29 July 2024.

22 Animals in Science Committee, 'Antibody report by the Project Licence Strategic Review subgroup' (October 2022) < https://www.gov.uk/government/publications/review-of-antibody-licences-report-by-the-animals-in-science-committee/antibody-report-by-the-project-licence-strategic-review-subgroup-accessible> accessed 25 Jul 2024.
23 Rawle (n 4)
24 Home Office 'Animals in science statistics' (www.gov.uk, 9 September 2013) < https://www.gov.uk/government/collections/animals-in-science-statistics> accessed 25 Jul 2024.

dures carried out for experimental purposes, the number of procedures carried out for the creation and breeding of genetically altered animals, the number of procedures that used specific species, and severity levels of procedures. Alongside the report, data tables are published which show the statistics in more detail. Most of the categories contain information from 2014 to the present year.

The annual statistics are vital for transparency in order to accurately understand where and how animals are used in research. The primary responsibility of researchers under the 3Rs principles is to replace animal use in individual procedures and projects. The desired year-on-year trend to reflect this should therefore be a fall in the total number of procedures on animals. More specifically, the statistics help identify exactly where, why, and how animals are still being used in science and can help identify where animal use is being effectively replaced. This in turn can inform the development of alternatives to help address areas of science still heavily reliant on animals. Whilst the current statistics provide some useful insight, some simple additions and alterations could improve transparency and provide more information on the animals involved in research.

In March 2023, the UK Office for Statistics Regulation published a letter containing the results of a compliance check that they had conducted on the annual statistics.[25] This compliance check was conducted in response to concerns that were raised by the public, focusing on errors that had been found in previous statistics publications. Errors in the published statistics bring the validity of the statistics and the data collection process into question. The subsequent compliance check focused on four main areas - quality assurance, revisions and corrections, clarity and insight, and user engagement.

Recommendations:

Based on our work at Replacing Animal Research, there are several changes or additions that could be made to the annual statistics that would improve their transparency, scope, and usability.

Inclusion of animals bred and killed before use in a regulated procedure: There is currently no requirement to record the number of animals that are killed or die each year without being used in a regulated procedure, with the exception of genetically altered animals and specially protected species. This means that a large number of animals that are bred for research but not used are slipping through the system and not being accounted for, making the overall statistics inaccurate. Under EU Directive 2010/63/EU, data on animals under these circumstances must be published every five years.[26] The UK previously published this data in line with EU Directive 2010/63/EU in 2017, but is no longer legally obliged to do so as it is no longer a member of the EU.[27] Not publishing this data is, at best, compromising the use of the annual statistics to accurately reflect the full scale of animal use, and at worst, actively misleading the public on the total number of animals involved in all points of research and testing. As a minimum, the UK could continue the collection and publication of this data, at least every five years in line with the EU. However, ideally, this data could be included in the annual statistics to more accurately represent the number of animals involved in research each year.

Re-inclusion of establishment type: Establishment types include universities, public health laboratories, non-profit organisations, and government departments. Prior to the 2021 statistics, the type (and number) of licensed Home Office Establishments were published

25 Mark Pont, 'Annual Statistics of Scientific Procedures on Living Animals, Great Britain' (March 2023) < https://osr.statisticsauthority.gov.uk/correspondence/mark-pont-to-jon-simmons-annual-statistics-of-scientific-procedures-on-living-animals-great-britain/> accessed 25 Jul 2024.

26 European Commission 'Commission Staff Working Document – Union overview on the implementation of Directive 2010/63/EU on the protection of animals used for scientific purposes in the Member States of the European Union in 2018 – 2022' (July 2024) <https://d8aaf127-0203-427a-b8b6-1f1b942cd1af.usrfiles.com/ugd/d8aaf1_3673afd6252b4ebe824da451eb1f8c53.pdf> accessed 3 December 2024.

27 Home Office 'Additional statistics on breeding and genotyping of animals for scientific procedures, Great Britain 2017' (November 2018) < https://www.gov.uk/government/statistics/additional-statistics-on-breeding-and-genotyping-of-animals-for-scientific-procedures-great-britain-2017> accessed 30 July 2024.

annually.[28] In 2021, the Home Office removed the breakdown of establishment type from the annual statistics publication, stating that "establishment type is not an indicator of the type of procedures carried out and often establishments could be categorised as more than one establishment type."[29] This means that there is no longer information available on which types of establishments are the biggest users of animals, and has reduced transparency around where animals are being used in an area that has no impact on privacy or identification of individual establishments. Knowing which establishment types hold the highest number of licences and conduct the most procedures is vital for transparency and monitoring changing trends. It would also highlight the extent to which certain establishments use animals in research, meaning frameworks to support change can be focused on specific areas.

Inclusion of animals that are 'rehomed': Currently, there is no data published on the number of animals that are 'rehomed' annually, or to where they are 'rehomed.' The Guidance on the Operation of ASPA encourages consideration of 'rehoming' opportunities and contains information to aid this,[30] yet data on successful 'rehoming' is not published in the annual statistics. Under the legislation, 'rehoming' is defined as several different actions, including being moved to a new home (as a pet, to a farm, to an aquarium or zoo), being transferred to a slaughterhouse, or being moved to another research establishment abroad.[31] As such, this definition is highly misleading. The word 'rehomed' implies that an animal has been removed from the research system. Alternative terms could be used to reflect the animals' destination more accurately. As an example 'discharged' (from the Act) is a more reflective term that has been used historically within ASPA 1986.[32] Adding information on 'rehoming' would improve public understanding of the fate of animals used in research, specifically where animals are 'rehomed', and how many are 'rehomed'. Understanding the fate of animals used is important when considering the welfare of animals used in research. If they are 'rehomed' to another research establishment, they may be used in further scientific procedures with added potential to suffer.

Improved data collection and auditing: Whilst there is a legal requirement to collect data on how, where, and why animals are used in research,[33] we know from discussions with various stakeholders, that at research establishments, how data is collected in establishments is not standardised. Establishments and individual researchers can collect and record data any way they choose, be that electronically, or on paper. This leaves room for mistakes to occur too easily, as shown by the multiple errors that have previously been found in the statistics, leading to the compliance check. This not only brings into question the validity of the published statistics but also indicates that the data are not being audited properly. A simple solution would be to engage external auditors to hopefully identify and reduce the number of errors prior to publication. We know that some improvements are being made regarding data collection, with the introduction of the online licensing system Animals in Science Procedures e-Licensing system (ASPeL), which has built-in systems for end of year data collection.[34] Project licence holders, however, are still responsible for managing their data throughout the year before inputting them into ASPeL, leaving room for information to be lost, misplaced, or inaccurately recorded. To help prevent errors, ASPeL, or another online data capture system could be utilised to allow data to be

28 Home Office 'Statistics of scientific procedures on living animals, Great Britain 2020' (July 2021) < https://www.gov.uk/government/statistics/statistics-of-scientific-procedures-on-living-animals-great-britain-2020> accessed 30 July 2024.

29 Home Office, 'Statistics of scientific procedures on living animals, Great Britain: 2021' (June 2022) <https://www.gov.uk/government/statistics/statistics-of-scientific-procedures-on-living-animals-great-britain-2021> accessed 25 July 2024.

30 Home Office, 'Guidance on the operations of the Animals (Scientific Procedures) Act 1986' (October 2024) <https://assets.publishing.service.gov.uk/media/6700017e080bdf716392ee63/Guidance_on_the_operation_of_ASPA_-_December_2023.pdf> accessed 3 December 2024.

31 Animals in Science Regulation Unit 'Advice Note: 03/2015 Animals (Scientific Procedures) Act 1986 Re-homing and setting free of animals' (October 2015) < https://assets.publishing.service.gov.uk/media/5a82e2ab40f0b6230269d373/Advice_Note_Rehoming_setting_free.pdf> accessed 20 July 2024.

32 The Animals (Scientific Procedures) Act 1986 Amendment Regulations 2012, SI 2012/3039

33 Animals (Scientific Procedures) Act 1986, s 21A

34 Pont (n 25)

collected throughout the life of a project licence. There could also be the introduction of a regulatory requirement to collect data in this manner at key stages of animal use within a project, such as the total number of animals bred or obtained, the number of animals actually used for certain procedures, and the end fate of all the animals.

2. Strengthening replacement requirements in the Non-Technical Summary of project licence applications

The second area of concern is the current project licence application processes, and its failure to ensure rigorous scrutiny of replacement. Project licence applications in the UK are completed through ASPeL, an online system that replaced the previous paper system for licensing. ASPeL covers all aspects of the proposed animal research project and procedures. The first main section of the application is the Non-Technical Summary (NTS).[35] NTS' are published publicly for all licensed projects involving procedures on animals.[36] They should provide a clear, lay summary of why, and how, the research project is being carried out. This section of the application contains questions on the project's aim, what the benefits and harms are likely to be, and how the 3Rs have been implemented. This is the only section of the licence application form that contains questions relating to how the 3Rs are being addressed.

Ensuring the 3Rs have been correctly applied is the responsibility of the researcher applying for the licence and should be addressed in the early stages of project planning, particularly exploring opportunities to avoid the need for regulated procedures on animals (replacement). Within a project licence application, applicants must demonstrate how they have searched for alternatives and explain why they were not suitable. However, the accompanying guidance document for project licence applications contains limited information on how to conduct a search, and no minimum evidence requirement to show this has been done.[37] Whilst the responsibility for exploring and assessing replacement opportunities sits with the researcher, licences are also reviewed at establishment and government level, with these bodies having the potential to adjust, improve or reject the application.

It is a requirement of ASPA 1986 that all research institutions with an establishment licence must have an Animal Welfare and Ethical Review Body (AWERB). The purpose of the AWERB includes advising on all matters related to animal welfare and the 3Rs, reviewing all proposed projects involving procedures on animals at the establishment, and providing a forum for ethical discussion. AWERB reviews take place before project licence applications are submitted to the Home Office for review at government level. This includes reviewing the implementation of replacement to ensure all alternatives have been fully explored before procedures on animals are approved. Once the Home Office has completed its review and is satisfied that the work is appropriate and in alignment with the law, the licence is granted, and animal work can commence.

Despite the implementation of the 3Rs being a legal requirement and reviews taking place, we know, as stated in the 2023 NC3Rs report, that the review of replacement is not always fulfilled as robustly as it should be by funders, AWERBs or the Home Office.[38] The reasons for this given in the report include, that suggesting replacements after the funder has approved an animal project is too late in the process, and a lack of access to in-depth replacement expertise on all review panels.

In February 2024, the Animals in Science Regulation Unit published updated guidance notes for project licence applicants.[39] This includes more detailed information on what to include in the replacement section of the licence application. Researchers must now provide evidence-based choices of the animal 'models' they intend to use, a structured review of alternative non-animal approaches they con-

35 Home Office (n 21)

36 Home Office, 'Transparency and freedom of information releases' (www.gov.uk) https://www.gov.uk/search/transparency-and-freedom-of-information-releases?parent=/business-and-industry/animal-research-and-testing&topic=85f606cf-741b-4aa3-8480-f92fcce7b3b8&content_store_document_type%5B%5D=transparency&order=updated-newest accessed 29 July 2024.

37 Home Office (n 21)

38 Rawle (n 4)

39 Home Office (n 21)

sidered, the databases and search methods that they used to find them, and show that their research will not include unnecessary duplication of animal use. Whilst these updates to the guidance are an important step in the right direction, they could, and should, go further to ensure replacement is fully explored, opportunities for replacement are not being missed, and reviewers have enough information to assess this in the application.

Recommendations:

There are various ideas for ensuring replacement is being robustly scrutinised during the application process. For example, some have called for a committee or panel of non-animal methods experts to review all project licence applications before a licence is granted.[40] One simple and practical approach is to make changes to the project licence application form itself, ensuring this evidence is presented in sufficient detail, to enable reviewers to make effective judgements or offer advice.

This could be achieved by adding more specific sub-questions to the application form to ensure that applicants provide all the information required by the guidance. This will provide applicants with space to break down the details in their answers, ensuring the different steps and thought processes that led them to decide to use animals over non-animal approaches are fully described. Prompts and hints for what applicants should include in each section could also be added to the replacement section questions. The updated guidance document already includes equivalent prompts as part of the reduction and refinement sections, but there is currently nothing equivalent as part of the replacement section. This makes little sense.

The current NTS' replacement questions are:

1. Why do you need to use animals to achieve the aim of your project?
2. Which non-animal alternative did you consider for use in this project?
3. Why were they not suitable?

As an example for question 1, we suggest adding four sub-questions, and the following prompt:

"You must demonstrate that you have considered all possible alternatives for your programme of work by describing the steps you have taken to actively research non-animal methods."

a. Can any part of your proposed work using animals be replaced?
b. Summarise the evidence base for your choice of animal model in this project. Please provide 2-3 references for your answer.
c. How does your project avoid unnecessary duplication?
d. Do you plan to publish this research or share the data in another format to avoid duplication of animal use in future?

As well as changes to the questions within the licence application form, some additional simple non-specialist questions could also be asked, to provide information that would guide both researchers and reviewers of applications, to ensure a thorough exploration of opportunities to avoid animal use has been performed, such as the 'Replacement Checklist'.[41]

In addition to improving the detail and consistency within and between individual NTS', as the only public record of project licences granted for animal work, the format in which they are published could be more accessible. Currently in the UK, NTS' are published in large PDF documents, covering several months at a time.[42] By comparison, EU NTS' are published in an online database allowing for searching and filtering by country, project title, keywords, species, purpose, year and language.[43] To further promote transparency in NTS', the UK could also publish the NTS' in a similar database, or if possible, combine them with the EU database to allow for easier searching and

40 HC Deb 16 January 2023, col 5W

41 Juliet Dukes and others, 'Reviewing Current Guidance for the 'R' of Replacement and Rethinking it with the 'Replacement Checklist'' ATLA

42 Home Office (n 36)

43 European Commission, 'ALURES – Animal Use Reporting – EU System EU NTS Database on the Use of Animals for Scientific Purposes Under Directive 2010/63/EU (webgate.ec.europa.eu) < https://webgate.ec.europa.eu/envdataportal/web/resources/alures/submission/nts/list> accessed 29 July 2024.

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benchmarking across the EU and the UK.

3. Section 24 of the Animals (Scientific Procedures) Act 1986

The third area of concern relates directly to the law itself. Section 24 is a section of ASPA 1986[44] that protects confidential information, meaning that the Home Office cannot release any information received in confidence under the Act, even if the provider of the information has no objection to its disclosure. Whilst basic data is published around the use of animals in science, including annual statistics and NTS', Section 24 prevents more detailed information, such as full licence applications and licensing reviews, from being accessed. This means detailed information on procedures is not available to the public. Section 24 is incompatible with previous government commitments on openness and transparency[45] and the central principles of the Freedom of Information Act 2000 (FOI 2000), which allows for public access to information held by public authorities.[46] ASPA 1986 predates FOI 2000 by 14 years. Section 24 also goes against the trend seen in recent years to improve transparency around animal research through initiatives such as the Concordat on Openness on Animal Research in the UK, launched by the organisation Understanding Animal Research,[47] and the European Animal Research Association's Be Open About Animal Research Day.[48] These initiatives have been developed by organisations supporting animal research to encourage transparency and build public trust in animal research.

This lack of transparency is an issue that has been identified and raised in UK Parliament several times over the last two decades, resulting in several government reviews. When

44 Animals (Scientific Procedures) Act 1986, s 24

45 Matt Hancock and others, 'Open and transparent government' (March 2016) <https://www.gov.uk/government/speeches/open-and-transparent-government> accessed 6 January 2025.

46 Freedom of Information Act 2000

47 Understanding Animal Research 'Concordat on Openness on Animal Research in the UK' (concordatopenness.org.uk) < https://concordatopenness.org.uk/> accessed 29 July 2024.

48 European Animal Research Association '#BOARD24 Celebrating openness about animal research' (EARA.EU) < https://www.eara.eu/board24> accessed 29 July 2024.

initially raised in Parliament in 2001, the Government argued that Section 24 was in place to protect individual scientists and their institutions from the actions of animal rights extremists.[49] However, since, and including this response, the Government has stated that it remains committed to creating a position of greater openness and transparency within the use of animals in scientific procedures, with Section 24 being a key barrier to this, and has provided very few arguments in support of retaining Section 24.[50]

The first governmental review was conducted in 2002 by a House of Lords Select Committee which recommended that the section be repealed.[51] The Government replied to the Select Committee's report in 2003 stating that they would 'consult further with the scientific community before reaching a final decision."[52] In 2004, Section 24 was reviewed again by the Home Office, but concluded that due to concerns from the scientific community around the impact of repealing Section 24, the section should be retained, with the potential to be re-reviewed in 2 years.[53] Between 2004 and 2014, several MPs questioned whether repealing the section would be reconsidered, however, there were no reviews during this time. In 2014, the Government published the 'Working to reduce the use of animals in scientific research' delivery plan.[54] In response to this, the Minister of State for the Home Department stated that the Government was actively reviewing Section 24 in line with the delivery plan and their policy on openness and transparency, leading to a public consultation being conducted between May and June 2014.[55]

The consultation proposed four options for amending Section 24:

- Option 1: Retain Section 24 of ASPA
- Option 2a: Repeal Section 24 and amend ASPA by creating a criminal offence of malicious disclosure of information about the use of animals in scientific research
- Option 2b: As option 2a, but with the amended legislative framework to include a statutory prohibition on disclosure of information relating only to people, places and intellectual property
- Option 3: Repeal Section 24 of ASPA, allowing all information to be publicly disclosed unless exempt under the Freedom of Information Act

The preferred government option during the consultation was option 2b.[56] Despite the consultation ending and being reviewed in 2014, no results have been published and Section 24 remains in place as it was originally legislated. The Home Office stated in March 2024 that there are currently no plans to further review Section 24.[57]

Recommendations:

Considering the work that has been done up to this point, the previous recommendations provided for moving forward, and the lack of governmental arguments in support of retaining the section over the previous two decades, this is a missed opportunity to increase transparency.

As a fundamental principle of an open democracy, there should always be an assumption of transparency, unless there is clear evidence that any risk of disclosure outweighs the public interest. This is what the FOI Act 2000 is designed to do, and its existence and protections render Section 24 obsolete.

49 HC Deb 17 July 2001, col 129W

50 HC Deb 24 May 2002, col 708W; HC Deb 1 March 2011, col 289W; HC Deb 20 June 2011, col 3W; HC Deb 5 February 2013, col 46W

51 Select Committee on Animals in Scientific Procedures Volume I – Report (HL 2001-02 150-I) paras 9.11-9.18

52 Secretary of State for the Home Department, The Government Reply to the Report of the House of Lords Select Committee on Animals in Scientific Procedures Session 2001-2002 HL 150-I (Cm 5729, 2003)

53 HC Deb 1 July 2004, vol 423, col 17W

54 Home Office, Department for Business Innovation & Skills, Department of Health, 'Working to reduce the use of animals in scientific research' (February 2014) < https://www.gov.uk/government/publications/working-to-reduce-the-use-of-animals-in-research-delivery-plan> accessed 30 Jul 2024.

55 Home Office 'Consultation on the review of Section 24 of the Animals (Scientific Procedures) Act 1986' (May 2014) < https://assets.publishing.service.gov.uk/media/5a7e-0ba7e5274a2e87daf307/Consultation_on_the_review_of_Section_24_of_ASPA.pdf> accessed 30 July 2024.

56 ibid.

57 Animals in Science Committee 'Minutes of the 42nd Meeting: 12th March 2024' (July 2024) < https://assets.publishing.service.gov.uk/media/66a7af0b49b9c0597fdb0685/ASC+meeting+minutes_+12+March+2024.pdf> accessed July 2024.

In light of previous recommendations to this effect, we believe that Section 24 should be repealed to allow access to information that is currently protected, without increased risk to confidentiality. This would increase transparency around animal research, particularly project licences, by allowing opportunities for further scrutiny of successful applications and the scientific procedures that take place on animals. Option 2b from the 2014 consultation, the preferred government option, would allow the controlled release of information for independent auditing, review, and scrutiny, whilst protecting the identities and intellectual property of the researchers who were involved.

Repealing Section 24 in this way would be particularly beneficial to better understand the information provided by project licence applicants, especially around replacement, and the way that licences are reviewed at both government and establishment levels. This would help inform and develop training and resources, both for those applying for licences, and reviewers.

Conclusion

Despite being a legal obligation under the Animals (Scientific Procedure) Act 1986 to replace animal use where possible, it is clear that the consideration of scientific alternatives prior to animal use is not being carried out consistently or effectively, and that a lack of transparency is a key factor enabling this. Whilst the overarching requirements of the legislation are clear, the frameworks and processes for upholding them are lacking, making transparency difficult to achieve, and meaning that opportunities for animal replacement are being missed.

As outlined in this paper, we believe several simple changes could be made to improve the implementation of the legislation. Improvements and additions to the Annual Statistics of Scientific Procedures on Living Animals in Great Britain, strengthening Non-Technical Summaries of project licence applications, and repealing Section 24 of ASPA 1986 will each have a considerable impact on transparency, and in turn, will improve how the replacement of animal use in science is considered and addressed, as well as improving the public's understanding of animal research and growing public trust in both scientists and the government.

Preventing the next pandemic by fighting consumerism to improving the treatment of animals through an international treaty

By Jennifer Bass

Introduction

On a factory Farm in the United States (US), a young calf named Stanton clung to life after being held in a stall so filthy that it left him covered head to tail in muck.[1] The excrement was so deep that nine other calves had already drowned in their own waste.[2] The Farm Sanctuary found him "[s]ick and weak, he clung to life, nestled against one of the calves who had already drowned in muck."[3] As is the same with most calves in the dairy industry, Stanton was taken from his mother just days after birth, instead of being weaned off of his mother's milk over an eleven month period.[4] Without this milk he failed to "receive immunity-boosting colostrum" causing him to grow "sick and frail quickly."[5] Thankfully he was rescued by the Farm Sanctuary. However, Stanton's ability to live a new life at a sanctuary is a statistical anomaly to how veal calves spend their short lives, where they will be taken from their mothers and killed at the age of sixteen to eighteen weeks old.[6] The poor conditions and outcomes for animals also result in poor outcomes for humans in the form of the creation and spread of disease.[7]

Across the globe from the Farm Sanctuary a half-mile-long wall covered in 150,000 pink hearts memorializing those lost in the COVID-19 (COVID) pandemic, stands across from Big Ben in London.[8] Many of the hearts feature faded inscriptions for lost loved ones.[9] It takes about ten minutes to walk the length of the wall. These hearts only represent a percentage of the citizens lost to COVID in a very small country.[10] Though most communities are over the worst of COVID, if bird flu mutates to be transferable to humans, we may be at the beginning of the next pandemic.[11] H5N1 and H5N2 bird flu is moving across the world spreading throughout our food systems and in wildlife populations, spreading between farm animals and wild animals.[12] All of the known transfers of bird flu to humans in the US have come from farms.[13] Even more alarming, the flu is also spreading from birds to other species including cows, seals, and has transferred to humans.[14] This transfer has resulted in Cal-

1 Farm Sanctuary, Four Adorable Animals Saved From the Dairy Industry (Feb 12, 2024), https://www.farmsanctuary.org/news-stories/four-animals-saved-from-dairy-industry/.

2 Id.

3 Id.

4 Laura Whalin, Daniel Weary & Marina Keyserlingk, Understanding Behavioral Development of Calves in Natural Settings to Inform Calf Management, 11 Animals (Basel) 2446, 2456 (2021), 10.3390/ani11082446.

5 Farm Sanctuary, Four Adorable Animals Saved from the Dairy Industry (Feb 12, 2024), https://www.farmsanctuary.org/news-stories/four-animals-saved-from-dairy-industry/.

6 Veal From Farm to Table, USDA (Nov. 7th, 2024), https://www.fsis.usda.gov/food-safety/safe-food-handling-and-preparation/meat-catfish/veal-farm-table.

7 Jay P Graham, et. Al., The Animal-Human Interface and Infectious Disease in Industrial Food Animal Production: Rethinking Biosecurity and Biocontainment, Public Health Rep (2008), https://pmc.ncbi.nlm.nih.gov/articles/PMC2289982.

8 Dorian Lynskey, Wall of love: the incredible story behind the national Covid memorial, Guardian (July 18, 2024), https://www.theguardian.com/world/2021/jul/18/wall-of-love-the-incredible-story-behind-the-national-covid-memorial-led-by-donkeys.

9 Id.

10 Statista, Number of novel coronavirus (COVID-19) deaths worldwide as of May 2, 2023, by country and territory (May 2, 2023), https://www.statista.com/statistics/1093256/novel-coronavirus-2019ncov-deaths-worldwide-by-country/.

11 Jaffar Al-Tawfiq, Raghavendra Tirupathi, & Mohamad-Hani Temsah, Feathered fears: Could avian H5N1 influenza be the next pandemic threat of disease X?, New Microbes New Infect (2024), https://pmc.ncbi.nlm.nih.gov/articles/PMC11067483/.

12 Id. see also: Piyush Dey, et al., Immune Control of Avian Influenza Virus Infection and Its Vaccine Development, 11 Vaccines (Basel). 593 (Mar. 4, 2023), 10.3390/vaccines11030593.

13 CDC A(H5N1) Bird Flu Response Update, CDC (Nov. 18, 2024), https://www.cdc.gov/bird-flu/spotlights/h5n1-response-11152024.html.

14 Id.

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ifornia declaring a state of emergency, while "Bird flu is considered by the World Health Organization to be a major pandemic threat."[15]

COVID and the bird flu are zoonotic diseases. COVID has killed over seven million people to date.[16] The stories of every one of these people and their families are intrinsically tied to how animals such as Stanton are treated because poor farming conditions result in the spread of zoonotic disease.[17] COVID is suspected to have originated from an open-air meat market called a "wet market." At wet markets, customers shop for fresh produce and meat from animals ranging from chickens and pigs to wildlife, who are transported and kept in unsanitary and cramped conditions.[18] Due to international pressure, wet markets were forced to close.[19] Yet, across the world, increasing numbers of animals are still held in similar disease-spreading conditions in factory farms.[20] By 2030 the production of animals for food is expected to increase globally by 5.9% for cows, 17.8% for poultry, 13.1% for pigs, and 15.7% for sheep.[21] This article will focus on farms in the US because it is where most of

15 Jacqueline Garget, Could Bird Flu Spark the Next Pandemic - And are we Prepared if it Does?, Cambridge (June 13, 2023), https://www.cam.ac.uk/stories/bird-flu-pandemic.
Governor Newsom takes proactive action to strengthen robust state response to Bird Flu, Governor Newsom (Dec. 18, 2024), https://www.gov.ca.gov/2024/12/18/governor-newsom-takes-proactive-action-to-strengthen-robust-state-response-to-bird-flu/.

16 Number of COVID-19 deaths reported to WHO (cumulative total), WHO (Dec. 22, 2024), https://data.who.int/dashboards/covid19/deaths.

17 Jaffar Al-Tawfiq, Raghavendra Tirupathi, & Mohamad-Hani Temsah, Feathered fears: Could avian H5N1 influenza be the next pandemic threat of disease X?, New Microbes New Infect (2024), https://pmc.ncbi.nlm.nih.gov/articles/PMC11067483/.

18 Ben Westcott & Serenitie Wang, China's wet markets are not what some people think they are, CNN, https://www.cnn.com/2020/04/14/asia/china-wet-market-coronavirus-intl-hnk/index.html.

19 Tanya Lewis, What New Evidence from the Wuhan Market Tells Us about COVID's Origins, Sci. America (Apr. 12, 2023), https://www.scientificamerican.com/article/what-new-evidence-from-the-wuhan-market-tells-us-about-covids-origins1/.
Scott Neuman, U.S. Pressures China to Close Wet Markets Thought to be Source Of COVID-19, NPR (Apr. 23, 2020), https://www.npr.org/sections/coronavirus-live-updates/2020/04/23/842178010/u-s-pressures-china-to-close-wet-markets-thought-to-be-source-of-covid-19.

20 OECD-FAO Agricultural Outlook 2021-2030, OECD/FAO 164 (2021).

21 Id.

the mega farms, which have no formal definition, are located, and there is a lack of regulation compared to Europe.[22]

Increased animal protection and reduced animal consumption would lower the risk of the next pandemic by creating fewer opportunities for the creation and spread of disease.[23] The WHO argues that animal protection could reduce the spread of disease by providing more space per animal, ending the non-therapeutic use of antibiotics, and cleaner living conditions to name a few.[24] The world has run out of space to accommodate the increased demand for animal consumption, but this problem cannot be solved by individuals.[25] Though factory farms take less space for the animals themselves, "half of the world's habitable land is used for agriculture. More than three-quarters of global agricultural land is used for livestock."[26] The decreased use of land for raising animals does not mitigate the land required to feed the increased number of animals.

Given that the world food economy is an integrated industry, dominated by international corporations, a global treaty could be the best solution to prevent the next pandemic. The food industry is powerful and inelastic, which makes it challenging to bring new more humane products to consumers. Products that may help prevent the next pandemic by treating animals more humanely. The problem with improving animal protections on a country scale is that operations are easily moved to other countries. When production is moved, it moves the origin of the pandemic but does not prevent its spread or negative outcomes.

There are no international prohibitions on the mistreatment of domestic animals which includes animals raised for food. The World Organization for Animal Health (WOAH), UN Convention On Animal Health and Protection (UNCAHP), the International Coalition for Animal Protection (CAP), and the World Health Organization (WHO) are working to ratify international treaties or Conventions that include animal welfare provisions.[27] Preferably all of the treaties and conventions would be implemented because they cover different aspects of animal wellbeing, which would result in disease prevention. This change must occur before the mistreatment of animals results in the mass suffering of humanity.

Research shows the next pandemic will likely emerge from factory farms.[28] To prevent the next pandemic animal welfare must be improved, this is possible by overcoming consumerism and leakage through an international treaty. This article will begin by examining consumerism including humane washing, Ag Gag laws, and access to plant-based products. The second section will analyse how the conditions in factory farms create zoonotic diseases and how climate change increases the likelihood of their next occurrence. The third section will walk through previously proposed treaties and currently proposed treaties and offer more provisions that could improve their impact. The global food and animal product system is too substantial and homogenized for individual actors to make an impactful difference. To prevent the next pandemic animal

22 Elise Pohl & Sang-Ryong Lee, Local and Global Public Health and Emissions from Concentrated Animal Feeding Operations in the USA: A Scoping Review, Int J Environ Res Public Health. (July 13, 2024), 10.3390/ijerph21070916.

23 Jay P Graham, et. Al., The Animal-Human Interface and Infectious Disease in Industrial Food Animal Production: Rethinking Biosecurity and Biocontainment, Public Health Rep (2008), https://pmc.ncbi.nlm.nih.gov/articles/PMC2289982.
See also: Antoine F. Goetschel, Animal welfare as the basis of One Health: A UN convention on animal welfare, health, and protection poses a realistic solution to improved animal welfare and human health, CABI One Health (Feb 1, 2024), https://www.cabidigitallibrary.org/doi/10.1079/cabionehealth.2024.0003.

24 Zoonoses, WHO (July 29, 2020), https://www.who.int/news-room/fact-sheets/detail/zoonoses.
See also: Ann Linder, et. Al., Animal Markets and Zoonotic Disease in the United States, New York University, 24 (2023), https://animal.law.harvard.edu/wp-content/uploads/Animal-Markets-and-Zoonotic-Disease-in-the-United-States.pdf.

25 Hannah Ritchie & Max Roser, Half of the world's habitable land is used for agriculture, Our World in Data (Feb. 16, 2024), https://ourworldindata.org/global-land-for-agriculture.

26 Id.

27 Convention on Animal Protection, art. 1 [hereinafter CAP] (2022), https://assets.website files.com.
See also World Health Organization Convention, Agreement or Other International Instrument on Pandemic Prevention, Preparedness and Response, art. 5 [hereinafter WHO] (2023), https://apps.who.int/gb/inb/pdf_files/inb5/A_INB5_6-en.pdf.

28 Ann Linder, et. Al., Animal Markets and Zoonotic Disease in the United States, New York University, 24 (2023), https://animal.law.harvard.edu/wp-content/uploads/Animal-Markets-and-Zoonotic-Disease-in-the-United-States.pdf.

welfare must be considered.

Zoonotic Disease Created By Animal Agriculture

A zoonotic disease is when germs spread from animals to people.[29] The germs that cause disease include viruses, bacteria, parasites, and fungi.[30] Six out of ten current diseases can be spread from animals to humans, which is called spillover.[31] Spillover can then be spread back from humans to animals, which is called spillback.[32]

There are several ways diseases are transferred between humans and animals. The first is when the infected human or animal has direct contact with humans or animals or their bodily fluids, for example when humans slaughter animals.[33] The second way diseases are spread is through indirect contact with the places where animals live, for instance when humans are cleaning stalls.[34] The third is vector-born disease when a tick or insect like a mosquito bites a person and spreads disease, these insects are able to multiply quickly in the unclean and crowded conditions on factory farms.[35] The fourth is through foodborne illness–each year one in six Americans becomes ill from eating contaminated food, for example when disease is spread from spreading animal waste onto crops.[36] Finally, diseases can be spread from contaminated drinking water, which is called waterborne illness, for instance when byproducts from factory farms are allowed to enter waterways.[37] All five ways of spreading disease can be increased through factory farming.

The creation of new illnesses cannot be separated from animal health since "[three] out of every [four] new or emerging infectious diseases in people come from animals."[38] The first section will discuss the bird flu, which is likely to be our next major pandemic. The second section will analyse COVID. The final section will discuss why zoonotic diseases are likely to originate in factory farms. [39] The three major reasons are that the conditions the animals are held in promote diseases, the widespread use of antibiotics, and the handling of animal waste. In fact, the 1918 influenza outbreak most likely originated from a farm in the US.[40]

A. H5N1 and H5N2 Bird Flu

Across the US and world, H5N1 has transferred to a broad range of species and has even been contracted by several humans.[41] There have been over 259 reported cases in mammals in the US and animals as remote as seals in Antarctica have contracted the disease.[42] Recently, a man died from H5N2, which is considered a more contagious strain of the flu among humans.[43] As of this writing birds used for food across the country have contracted different strains of the bird flu.[44] Often the flu is

29 Centers for Disease Control and Prevention, Zoonotic Disease (July 1, 2021), https://www.cdc.gov/one-health/basics/zoonotic-diseases.html.
30 David Quammen, Spillover: Animal Infection and the Next Human Pandemic, 19 Emerging Infection Disease 2 (Feb 2013).
31 Id.
32 Id.
33 Centers for Disease Control and Prevention, Zoonotic Disease (July 1, 2021), https://www.cdc.gov/one-health/basics/zoonotic-diseases.html.
34 Id. see also: Farmed Animals, CDC (Apr. 15, 2024), https://www.cdc.gov/healthy-pets/about/farm-animals.html.
35 Id. see also: Elizabeth H. Loh, Targeting Transmission Pathways for Emerging Zoonotic Disease Surveillance and Control, Vector-Borne and Zoonotic Diseases (July 17, 2015), https://doi.org/10.1089/vbz.2013.1563.
36 Id. see also Gauthami Penakalapati, et Al., Exposure to Animal Feces and Human Health: A Systematic Review and Proposed Research Priorities, Environ Sci Technol. (Sep. 19, 2017), 10.1021/acs.est.7b02811.
37 Id. see also: Chryseis Modderman, Reduce water quality issues from manure, Uni.of Minnesota (2020), https://extension.umn.edu/manure-management/reduce-water-quality-issues
38 Id.
39 Jonathan Anomaly, What's Wrong With Factory Farming?, 8 Oxford Press 245, 247(Feb 2014).
40 John M. Barry, The site of Origin of the 1918 Influenza Pandemic and its Public Health Implications, Nat'l Lib of Med. (Jan. 2023).
41 CDC, Influenza: H5N1 Bird Flu: Current Situation Summary (June 6, 2024), https://www.cdc.gov/flu/avianflu/avian-flu-summary.htm.
42 USDA, Detections of Highly Pathogenic Avian Influenza in Mammals (June 4, 2024), https://www.aphis.usda.gov/livestock-poultry-disease/avian/avian-influenza/hpai-detections/mammals
43 Guardian, Mexico man dies from first human case of bird flu strain H5N2 (June 5, 2024), https://www.theguardian.com/world/article/2024/jun/06/mexico-man-dies-from-first-human-case-of-bird-flu-strain-h5n2
44 USDA, Confirmations of Highly Pathogenic Avian Influenza in Commercial and Backyard Flocks (May 29, 2024), https://www.aphis.usda.gov/livestock-poultry-disease/avian/avian-influenza/hpai-detections/commercial-backyard-flocks.

transmitted by migrating birds resulting in the death of millions of birds.[45] A recent development causing alarm is that cows are contracting and spreading the illness,[46] and you can detect the disease in cow's milk and animal products.[47]

Though there is already a vaccine it is questionable that it would be helpful for fighting mutations.[48] Given that the bird flu might be our next pandemic, the scaling up of the vaccine to be used worldwide is another obstacle that the bird flu shared with COVID.[49] There have been multiple cases of the bird flu in humans leaving farm workers and their communities particularly vulnerable to this illness.[50] The development of new diseases leaves us at a place where we need to improve animal welfare such as improving the health and hygiene of animals used for consumption to prevent the next pandemic.[51]

B. COVID-19 Case Study

The Coronavirus is a disease caused by the SARS-CoV-2 virus.[52] The virus was first detected in December 2019 and by March most of the world was quarantining.[53] The virus is highly contagious and transfers between people through close contact,[54] specifically through the small liquid particles transmitted when people cough, sneeze, speak, or breathe,[55] and individuals are the most contagious two days before they develop symptoms.[56] Most people who contract COVID experience mild to moderate symptoms, though it is often fatal.[57] The National Library of Medicine in the US reported that "[g]lobal case fatalities ranged 1.7%–39.0% in February to March of 2020 and fell below 0.3% in July to August 2022."[58] COVID-19 is no longer considered a large threat to human health, mostly because of access to vaccines.[59] Though, the WHO chief reports that "[t]he threat of another variant emerging that causes new surges of disease and death remains, and the threat of another pathogen emerging with even deadlier potential remains."[60] The world needs to move beyond mitigating pandemics by focusing on prevention.

COVID is a case study on how diseases can be created in conditions such as factory farms. When animals are held so close together, anything that is highly contagious and is transferred in similar or different ways than COVID will likely spread very quickly in a factory farm, not only from animals lowered immune systems but from keeping animals so close together that liquid particles are inevitable to spread disease. There is no social distancing for animals that are held in cages that they can not even turn around in, and they are unable sneeze into their elbows. COVID was likely created by the mistreatment of animals, and it is likely how the next pandemic will start.

45 USDA, Detections of Highly Pathogenic Avian Influenza in Wild Birds (June 4, 2024), https://www.aphis.usda.gov/livestock-poultry-disease/avian/avian-influenza/hpai-detections/wild-birds.
Phoebe Weston, Avian Flu May Have Killed Millions of Birds Globally as Outbreak Ravages South America, The Guardian (July 22, 2023 06.00 EDT), https://www.theguardian.com/environment/2023/jul/22/avian-flu-may-have-killed-millions-of-bird-as-outbreak-hits-south-america-aoe.

46 USDA, Highly Pathogenic Avian Influenza (HPAI) Detections in Livestock (June 6, 2024), https://www.aphis.usda.gov/livestock-poultry-disease/avian/avian-influenza/hpai-detections/livestock.

47 Robin Foste & Dani Blum, Bird Flu Virus Found in Beef Tissue, N.Y. Times (May, 24, 2024), https://www.nytimes.com/2024/05/24/health/bird-flu-beef.html.

48 David Nield, Scientists Preparing Bird Flu Vaccines for Humans in Case of Pandemic, (June 7, 2024), https://www.sciencealert.com/scientists-preparing-bird-flu-vaccines-for-humans-in-case-of-pandemic.

49 Jelle J. Feddema, et al., Upscaling Vaccine Manufacturing Capacity - Key Bottlenecks and Lessons Learned, 41 Vaccine 3459 (June 3, 2023), 10.1016/j.vaccine.2023.05.027.

50 CDC, CDC Reports Second Human Case of H5 Bird Flu Tied to Dairy Cow Outbreak (May 22, 2024), https://www.cdc.gov/media/releases/2024/s0522-human-case-h5.html.

51 Ann Linder, et. Al., Animal Markets and Zoonotic Disease in the United States, New York University, 24 (2023), https://animal.law.harvard.edu/wp-content/uploads/Animal-Markets-and-Zoonotic-Disease-in-the-United-States.pdf.

52 WHO, Coronavirus disease (COVID-19): How is it transmitted? (Dec. 23, 2021), https://www.who.int/news-room/questions-and-answers/item/coronavirus-disease-covid-19-how-is-it-transmitted

53 WHO, Coronavirus disease (COVID-19): How is it transmitted? (Dec. 23, 2021), https://www.who.int/news-room/questions-and-answers/item/coronavirus-disease-covid-19-how-is-it-transmitted

54 Id.

55 Id.

56 Id.

57 Id.

58 Nobuyuki Horita & Takeshi Fukumoto, Global Case Fatality Rate From COVID19 has Decreased by 96.8% During 2.5 Years of the Pandemic, Nat'l Lib of Med. (Jan. 2023).

59 Id.

60 UN, World Must Be Ready to Respond to Next Pandemic: WHO Chief (May 22, 2023), https://news.un.org/en/story/2023/05/1136912.

C. Why the Next Zoonotic Disease Will Likely Come from a Factory Farm

This section will focus on the three ways that factory farms spread disease. Having so many animals in such a small space is cost effective but also promotes and quickly spreads disease. Are these practices worth the low cost given their environmental effects and ability to create and spread illness? This section will first cover the unhealthy living conditions for animals on factory farms and how the resulting stress promotes disease. The second section will analyse how the overuse of antibiotics strengthens disease. The third section will cover how the mishandling of animal waste spreads disease. The design of factory farms result in the creation and spread of disease.[61]

i. Factory Farm Conditions Promote Disease in Animals

Factory farms create unnatural conditions for animals causing stress which consequently promotes disease.[62] Animals are fed an insufficient diet both in quantity and quality. For example, cows are fed on grains instead of eating their preferred diet of grass.[63] It is common for six-hundred-pound hogs to be raised in two-foot-wide metal cages,[64] and this constant stress of restrained movements and their inability to exhibit natural behaviours, makes the animals prone to disease by lowering their immune systems.[65] Most of the animals are also genetically modified in a way that compromises their health. For example, chickens are excessively inbred or are bred to grow so large that they are unable to walk.[66] Animals often have their offspring taken away from them causing mothers and their children considerable psychological damage as well as not providing the animals with the nutrients they need to be healthy.[67] By lowering animals immune systems, providing cramped unsanitary space, and then over medicating animals it causes Factory farms to become a teaming petri dish that is ripe to form the next pandemic.

Chickens also have a high disease transmission rate resulting from 71% of egg-producing hens being raised in battery cages.[68] "The dimensions of a single compartment in H-type cages typically range from 60-70 cm in length, 55-65 cm in width, and 40-45 cm in height."[69] A H-type cage holds about 9 chickens per compartment.[70] The chickens can barely stand and are unable to spread their wings,[71] and often birds are not able to eat at the same time. "If you're a low-ranking bird—low on the peck order—you tend to get pushed to the back during feeding and you can't get enough food. So often the lowest ranking bird in that cage gets sick and dies."[72]

This pecking order causes a breeding ground for new diseases such as the bird flu, by keeping sick and expired animals in the same cage as animals with lowered immune systems. If a bird contracts bird flu they will become lower on the pecking order and then not have the sustenance to try to fight the disease. Then once they are sick "[i]nfected birds can shed avian influenza A viruses in their saliva, nasal secretions, and feces," close proximity to alive or dead birds with bird flu, can easily infect other birds. [73] In 2022, 131 million farmed

61 Ann Linder, et. Al., Animal Markets and Zoonotic Disease in the United States, New York University, 24 (2023), https://animal.law.harvard.edu/wp-content/uploads/Animal-Markets-and-Zoonotic-Disease-in-the-United-States.pdf.

62 Ann Linder, et. Al., Animal Markets and Zoonotic Disease in the United States, New York University, 24 (2023), https://animal.law.harvard.edu/wp-content/uploads/Animal-Markets-and-Zoonotic-Disease-in-the-United-States.pdf.

63 Frederick D. Provenza, Scott L. Kronberg, & Pablo Gregorini, Is Grassfed Meat and Dairy Better for Human and Environmental Health?, Frontiers in Nutrition, 2 (2019).

64 Id.

65 Jonathan Anomaly, What's Wrong With Factory Farming?, 8 Oxford Press 245, 247 (Feb 2014).

66 Jessica Scott-Reid, The "Humanewashing" of America's Meat and Dairy, Explained, Vox (Dec. 12, 2021), https://www.vox.com/22838160/animal-welfare-labels-meat-dairy-eggs-humane-humanewashing.

67 Michael L. Power & Jay Schulkin, Maternal Regulation of Offspring Development in Mammals is an Ancient Adaptation Tied to Lactation, 1 Appl Transl Genom 55 (Dec 1, 2013), 10.1016/j.atg.2013.06.001.

68 Kenny Torrella, The Biggest Animal Welfare Success of the Past 6 Years, in One Chart, VOX (Mar. 23, 2021), https://www.vox.com/future-perfect/22331708/eggs-cages-chickens-hens-meat-poultry.

69 What is the size of a layer chicken cage?, LIVI (Dec. 12, 2023), https://www.poultry-farming.com/blog/what-is-the-size-of-a-layer-chicken-cage.html.

70 Id.

71 Jessica Scott-Reid, The "Humanewashing" of America's Meat and Dairy, Explained, Vox (Dec. 12, 2021), https://www.vox.com/22838160/animal-welfare-labels-meat-dairy-eggs-humane-humanewashing.

72 Id.

73 Avian Influenza in Birds: Causes and How It Spreads, CDC (May 3, 2024), https://www.cdc.gov/bird-flu/

chickens were killed from culling to prevent the spread of this disease.[74] The treatment of egg-laying hens is just one example of how low welfare for animals results in disease in humans.

ii. How the Widespread Use of Antibiotics and Growth Hormones Promote Disease in Humans

The use of antibiotics and growth hormones in factory farms develops and spreads disease. Factory farms are full of inhumane practices such as debeaking, tail docking, and other mutilations that cause constant pain and increases the likelihood of infections.[75] For example, "[i]n the UK, it was estimated that 90% of farmers remove tails, with use of rings most common (86%), followed by surgical (3%) and other methods (2%)," in order to prevent parasitic infection from flies and increase fertility.[76] This amputation is painful and is mostly performed with out anaesthesia or pain killers by farmers not veterinarians.[77] The procedures results in an open wound that are mostly not treated with either stitches or wound gel, causing an increased likelihood of infection.[78] The result of tail docking and other surgical procedures performed in this way causes stress and higher cortisol levels in the animals, there are often mistakes in procedures, and other negative outcomes such as tissue trauma.[79] Studies show that with out antibiotics "[a]lmost 82% of the studied lambs developed signs of wound infection after tail docking."[80] Factory farms in the US combat the infections caused by these procedures by giving all of their animals antibiotics.[81] Even in places such as the EU where preventative antibiotics are prohibited, if mega farms are using surgical practices with out preventing infection then the majority of the animals are likely to need antibiotics anyway.[82]

Antibiotics are used in factory farms to treat infections, prevent infections, and to promote the growth of animals.[83] If one animal contracts an infection, all of the animals are administered antibiotics, which is called a non-therapeutic use.[84] The non-therapeutic use of antibiotics includes preventative antibiotic use and antibiotics used to promote growth.[85] This practice results in bacteria developing resistance to antibiotics, which is then transferred to humans.[86] Antibiotic resistant bacteria can be spread to humans through food and contact with animals, then from person to person or through travel.[87] One example of the spread of an infection to humans is the antibiotic resistant staph infection.[88] According to the Centre for Disease Control (CDC), antibiotic-resistant infections killed five million people worldwide in 2019.[89] The WHO recommends ending all non-therapeutic use of antibiotics to prevent antibiotic resistance in humans.[90] It stated that "[i]f no action is taken today, by 2050, almost all current antibiotics will be ineffective in preventing and treating human disease, "...Scientific evidence clearly demonstrates that overuse of antibiotics in animals can contribute to

virus-transmission/avian-in-birds.html.

74 WHO, Ongoing Avian Influenza Outbreaks in Animal Pose Risk to Humans (Jul y12 2023), https://www.who.int/news/item/12-07-2023-ongoing-avian-influenza-outbreaks-in-animals-pose-risk-to-humans.

75 Kuenzel W.J., Neurobiological Basis of Sensory Perception: Welfare Implications of Beak Trimming, 86 Poultry Science 6, 1276-1277 (2007).

76 Luis Miguel Ferrer, et Al., Impact of a Topical Anaesthesia Wound Management Formulation on Pain, Inflammation and Reduction of Secondary Infections after Tail Docking in Lambs, Animals (Basel) (July 24, 2020), https://pmc.ncbi.nlm.nih.gov/articles/PMC7459688/.

77 Id.

78 Id.

79 Id.

80 Id.

81 Marvi Ali, Antibiotic Resistance and Ineffective Regulations for Factory Farming, 10 Wake Forest J. L. & Pol'y 87, 88 (2019).

82 Luis Miguel Ferrer, et Al., Impact of a Topical Anaesthesia Wound Management Formulation on Pain, Inflammation and Reduction of Secondary Infections after Tail Docking in Lambs, Animals (Basel) (July 24, 2020), https://pmc.ncbi.nlm.nih.gov/articles/PMC7459688/.

83 Id.

84 Id.

85 Id.

86 Marvi Ali, Antibiotic Resistance and Ineffective Regulations for Factory Farming, 10 Wake Forest J. L. & Pol'y 87, 88 (2019).
David L. Smith et al., Animal Antibiotic use has an Early But Important Impact on the Emergence of Antibiotic Resistance in Human Commensal Bacteria, 99 Proceedings of The Nat'l Acad. of Sci. 6434 (2002).

87 Antimicrobial Resistance: Causes and How It Spreads, CDC (Apr. 22, 2024), https://www.cdc.gov/antimicrobial-resistance/causes/index.html.

88 Id.

89 Center for Disease Control and Prevention, National Infection & Death Estimates for Antimicrobial Resistance (Dec 13, 2021), https://www.cdc.gov/drugresistance/national estimates.

90 WHO, Stop Using Antibiotics in Healthy Animals to Prevent the Spread of Antibiotic Resistance (Nov 7, 2017), https://www.who.int/news/item/07-11-2017-stop-using-antibiotics-in-healthy-animals-to-prevent-the-spread-of-antibiotic-resistance.

the emergence of antibiotic resistance."[91]

Another practice that is prompting disease in farmed animals is the use of growth hormones. For example, the growth hormones recombinant bovine somatotropin (rBST) is used to increase milk production in cows.[92] RBST is a genetically engineered version of naturally occurring BST.[93] Injecting rBST into cows causes an increase in infection from mastitis, an udder infection, and infections of the injection sites.[94] Though many countries have banned the use of rBST it is still used in the US.[95] The use of antibiotics to fight these infections increases the amount of antibiotics in the milk sold to consumers.[96] RBST also reduces the lifespan of cows and has a 50% increased risk of clinical lameness.[97] Lameness is defined as a "painful condition that affects the locomotor system of cattle and has a detrimental effect on health, welfare, and productivity."[98] The growth hormone increases bad outcomes for humans while putting the cows through unnecessary suffering.

iii. How the Handling of Animal Waste Transfers Disease

One of the easiest ways that bacteria spreads from farmed animals to humans is through their waste. [99] Animals are left in small enclosures covered in their own filth, such as the case with Stanton.[100] There is an unimaginable amount of waste created by animals on factory farms each day. Two factory farms can produce as much waste as a medium-sized city.[101] This copious amount of waste is placed into football field-sized pits that the industry calls lagoons.[102] Christine Ball-Blakely provides a working definition for these 'lagoons,' defining them as "Lagoons are vast open-air cesspools filled with untreated manure, urine, and afterbirth. Some lagoons are as large as seven-and-a-half acres and hold 20 to 45 million gallons of waste."[103] When the lagoons overfill, the waste is then sprayed onto local fields implementing the lagoon and spray field system.[104] The USDAs regulations are minimal for building and maintaining anaerobic lagoons.[105]

The mixture that come from lagoons is often sprayed on residents' homes and neighbourhoods, causing large mental and physical health problems.[106] Communities around CAFOS are affected by lowered water, soil, and air quality, as well as poor environmental outcomes.[107] This results in lowering the economic value of land in the area.[108] It also causes poor health outcomes such as higher risk of mortality from cardiovascular disease, poor mental health outcomes, cancers, respiratory disease, lower immune function, and kidney disease. CAFOs are often located in disadvantaged communities.[109] These communities also include workers from the CAFOs that are exposed to traumatic conditions that result in increased levels of violence.[110]

91 WHO Guidelines on Use of Medically Important Antimicrobials in Food-Producing Animals, WHO (Nov. 2017), https://www.ncbi.nlm.nih.gov/books/NBK493702.
92 Joanna K. Sax, Biotechnology and Consumer Decision-Making, 47 Seton Hall L. Rev. 433 (2017).
93 Id.
94 Alexandre Lamas, et. al., Tracing Recombinant Bovine Somatotropin Ab (Use) Through Gene Expression in Blood, Hair Follicles, and Milk Somatic Cells: A Matrix Comparison, 23(7) Molecules 1708, 8 (2018).
95 Id.
96 David L. Smith et al., Animal Antibiotic use has an Early but Important Impact on The Emergence of Antibiotic Resistance in Human Commensal Bacteria, 99 Proceedings of The Nat'l Acad. of Sci. 6434 (2002).
97 Can J Vet Res, A Meta-Analysis Review of the Effects of Recombinant Bovine Somatotropin, Nat'l Lib of Med. (Oct 2003).
98 Gerard Cramer & Laura Solano, Overview of Lameness in Cattle, Merck Manually of Veterinary Medicine (Apr 2023), https://www.merckvetmanual.com/musculoskeletal-system/lameness-in-cattle/overview-of-lameness-in-cattle.
99 Courtney Lee, From Footnote to Forethought: Considering the Consequences of Large-Scale, Industrialized Animal Agriculture in Developing Nations, 25 U.C. Davis J. Int'l L. & Pol'y 101 (June 12, 2019).
100 Id.
101 Id.
102 Id.
103 Christine Ball-Blakely, Cafos: Plaguing North Carolina Communities of Color, 18 Sustainable Dev. L. & Pol'y 4. (2017).
104 Id.
105 Natural Resources Conservation Service Conservation Practice Standard Waste Treatment Lagoon Code 359, USDA (2017), https://www.nrcs.usda.gov/sites/default/files/202210/Waste_Treatment_Lagoon_359_CPS_Oct_2017.pdf.
106 Id.
107 Ji-Young Son, Marie Lynn Miranda & Michelle L Bell, Exposure to concentrated animal feeding operations (CAFOs) and risk of mortality in North Carolina, USA, Sci Total Environ. (Dec. 10, 2022), https://pmc.ncbi.nlm.nih.gov/articles/PMC8530906/.
108 Id.
109 Id.
110 Delcianna Winders & Elan Abrell, Slaughterhouse Workers, Animals, and the Environment: The Need for a Rights-Centered Regulatory Framework That Recognizes

Beyond the local level, spraying animal waste on fields increases infectious foodborne illnesses.[111] The fields sprayed are often used for crops grown for human consumption.[112] These illnesses are often strengthened by the constant use of antibiotics.[113] Some examples of foodborne illnesses attributed to animal products include Listeria, E. coli, Salmonella, and Clostridium.[114] While E. coli is common, many people do not appreciate how devastating it can be. A mother describes her ten-year-old daughter's experience with E. coli: "Her heart was so swollen it was like a sponge. It bled from every pore. The toxins shut down [her] liver and pancreas. Several times her skin turned black for weeks...She had a[n untreatable] brain swell... EEGs revealed thousands of grand mal seizures, which had caused blood clots in her eyes."[115] The mother continued, "[t]hen the neurologists told us she was essentially brain dead."[116] Though her daughter survived she was never the same.[117] Faeces infected with these illnesses are sprayed directly onto crops, and animal products are not always adequately sterilized, allowing disease to transfer strait to consumers.[118] Further, these illnesses can become antibiotic resistant resulting in even bigger damage to individuals and communities.[119] Most food born illnesses could be prevented by the proper treatment of animals and their waste.[120]

The abuse of animals in factory farms has resulted in the bird flu spreading and mutating to be more infectious in humans. Covid likely resulted from animals being similarly treated as animals held in factory farms, because farms are ideal for creating and spreading disease. The first reason is animals being held in densely populated conditions. The second is farms use of antibiotics and growth hormones. The third is the handling of animal waste. The misuse of animals in this way will create more diseases that will spread beyond animals to humans.

Megafarms and Consumerism

Megafarms, which have no formal definition, are called Concentrated Animal Feed Operations (CAFO's) in the US and are defined as industrial farms where a minimum of "1,000 animal units are confined for over 45 days a year."[121] Research performed by Our World in Data suggests that it is likely that most animals in the world killed for food live in factory farms.[122] It is estimated that 99% of farmed animals in the US live in factory farms, making it more likely that the US will be the next source of a major pandemic compared to other countries with less factory farms.[123] "A single facility can contain more than five million animals, a headcount greater than the human population of 27 of the 50 states."[124] These operations treat animals like commodities, packing individuals in as tightly as possible without any consideration of their wellbeing, this treatment causes stress in the animals and increases their likelihood of contracting disease.[125] The commod-

Interconnected Interests, 23 Harvard Human Rights Journal 2 (Nov. 2, 2021), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4777015.

111 Cheryl L. Leahy, Large-Scale Farmed Animal Abuse and Neglect: Law and its Enforcement, 4 J. Animal L. & Ethics 63 (May 2011).

112 Id.

113 David L. Smith et al., Animal Antibiotic use has an Early but Important Impact on the Emergence of Antibiotic Resistance in Human Commensal Bacteria, 99 Proceedings of The Nat'l Acad. of Sci. 6434 (2002).

114 USFDA, What You Need to Know About Foodborne Illnesses (Feb 2012), https://www.fda.gov/food/consumers/what-you-need-know-about-foodborne-illnesses.

115 Id.

116 Gail Eisnitz, Slaughterhouse: The Shocking Story of Greed, Neglect, and Inhumane Treatment Inside the U.S. Meat Industry, Prometheus Books, Ch.4. (Nov 2007).

117 Id.

118 Chunming Xu , et Al., Antibiotic-Resistant Escherichia coli from Farm Animal-Associated Sources, Antibiotics (Basel) (Nov. 2, 2022), https://pmc.ncbi.nlm.nih.gov/articles/PMC9686710/.

119 Id.

120 Cheryl L. Leahy, Large-Scale Farmed Animal Abuse and Neglect: Law and its Enforcement, 4 J. Animal L. & Ethics 63 (May 2011).

121 Malcolm Prior, More cattle kept in UK 'megafarms', BBC finds, BBC (Aug. 13, 2024), https://www.bbc.com/news/articles/cy4ldkpz1klo.
USDA, Nutrient Impacts on Water Quality Gain Public Policy Attention (2021), https://www.ers.usda.gov/webdocs/publications/42398/17778_aib771c_1_.pdf?v=0.

122 Hanna Richie, How many animals are factory-farmed?, Our World in Data (Nov. 2024), https://ourworldindata.org/how-many-animals-are-factory-farmed.

123 MeiMei Fox, The Humane League Works to Free Factory Farm Animals From Horrid Conditions, Forbes (Jan. 26, 2023), https://www.forbes.com/sites/meimeifox/2023/01/26/the-humane-league-works-to-free-factory-farm-animals-from-horrid-conditions/.

124 Ann Linder, et. Al., Animal Markets and Zoonotic Disease in the United States, New York University, 10 (2023), https://animal.law.harvard.edu/wp-content/uploads/Animal-Markets-and-Zoonotic-Disease-in-the-United-States.pdf.

125 Margot J. Pollans, Eaters, Powerless by Design, 120 Mich. L. Rev. 643 (2022).

ification of animals has been caused by consumerism because the increased density was caused by the increased demand for animal products that in turn result in poor health outcomes for consumers.[126]

Especially in the US, companies that own CAFO's are not held accountable for the externalities of their operations.[127] These externalities include degradation of the environment, reduced air quality, water pollution, and deforestation.[128] This degradation is being funded by governments, especially the US.[129] For example, one in five dollars used for raising animals in factory farms comes from the government.[130] The companies are often publicly traded corporations meaning profit is the major driver for their treatment of animals.[131] If corporations choose to lessen animal suffering, it would help their profits because of the increased demand for humane products and could prevent the next pandemic.[132] Half of zoonotic diseases are estimated to have emerged from animal agriculture,[133] and that number will only grow if factory farms continue to grow and spread. Such a large, organised international industry needs global cooperation to prevent humane leakage in the form of a treaty or a globally binding UN Convention to prevent the next pandemic.

This section will focus on corporations and what guides their behaviours. The first part focuses on corporate social responsibility. The second part focuses on consumerism and what is furthering it including humane washing, Ag Gag Laws, and lack of access to animal-based alternatives. If corporations were held accountable for their actions for their treatment of the environment and animals, then it would open the market so consumers would have more access to plant-based alternatives.

A. Corporate Social Responsibility

Corporate Social responsibility (CSR) "is about the impact an organization makes on society, the environment and the economy."[134] Corporations have driven the increase in animal production causing negative outcomes for consumers, though prices are lower, poor health outcomes are higher. Food law "paralyz[es] consumers through information control."[135] The information that these corporations produce misleads the public about the health effects of eating animal products and encourages a much higher rate of consumption than is healthy for consumers.[136] The spread of misinformation results in poor health outcomes for individuals including diabetes, heart disease, cancer, and a plethora of other ailments.[137] Further as discussed below, intensive feed facilities hurt the environment by increasing the effects of climate change and other negative externalities.[138] There are plant-based alternatives to almost every product produced from animals.[139] The production of plant-based products should be prioritised because it is less resource intensive to eat a plant instead of an animal that consumes plants.[140] "[I]f we shift away from eating meat and dairy and move towards a plant-based diet then the sun's energy goes directly in to growing our

126 Carrie R Daniel, et Al., Trends in meat consumption in the United States, Public Health Nutr. (Apr. 1, 2011), https://pmc.ncbi.nlm.nih.gov/articles/PMC3045642/.

127 Kevin Kuruc & Jonathan McFadden, Monetizing the Externalities of Animal Agriculture: Insights from an Inclusive Welfare Function, Population Rsch. Center (2021).

128 Id.

129 David Gillette & Warren Barge, The True Cost of a Hamburger, Am. Ins. for Econ. Rsch. (Apr. 20, 20), https://www.aier.org/article/the-true-cost-of-a-hamburger/.

130 Id.

131 JBS S.A. ADR Stock Forecast, Stockinvest (Nov. 27, 2024), https://stockinvest.us/stock/JBSAY.

132 C Victor Spain, Are They Buying It? United States Consumers' Changing Attitudes toward More Humanely Raised Meat, Eggs, and Dairy, Animals (Basel) (July 25, 2018), https://pmc.ncbi.nlm.nih.gov/articles/PMC6116027/.
see also: Ann Linder, et. Al., Animal Markets and Zoonotic Disease in the United States, New York University, 10 (2023), https://animal.law.harvard.edu/wp-content/uploads/Animal-Markets-and-Zoonotic-Disease-in-the-United-States.pdf.

133 Matthew N. Hayek, The Infectious Disease Trap of Animal Agriculture, National Library of Medicine (Nov. 2022).

134 Corporate Responsibility: an Introduction, CIPD (5, June 2024), https://www.cipd.org/uk/knowledge/fact-sheets/corporate-responsibility-factsheet

135 Margot J. Pollans, Eaters, Powerless by Design, 120 Mich. L. Rev. 643, 679 (2022).

136 Id.

137 Rashmi Sinha, et al., Meat Intake and Mortality: A Prospective Study of Over Half a Million People, 169 Arch Intern Med. 562 (2010).

138 Gowri Koneswaran & Danielle Nierenberg, Global Farm Animal Production and Global Warming: Impacting and Mitigating Climate Change, National Library of Medicine (Jan 2008).

139 Marcel Pointke & Elke Pawelzik, Plant-Based Alternative Products: Are They Healthy Alternatives? Micro- and Macronutrients and Nutritional Scoring, 14 Nutrients 601 (Jan 29, 2022), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8838485/.

140 Id.

food. And because that is so much more efficient we could still produce enough to feed us, but do so using just a quarter of the land."[141] Plant-based products also mitigate animal suffering and the spread of disease, while offering the same nutritional value as animal-based foods.[142]

A free market is defined as "an economic system in which prices and wages are determined by unrestricted competition between businesses, without government regulation or fear of monopolies."[143] A free market results in consumers being able to vote with their money for the practices they want to be used in the production of their products. In a simple model all consumers could show that they cared about animals by buying humane products. These purchasing practices could result in the humane treatment of animals becoming the industry standard.[144] Unfortunately, our system fails to allow consumers to vote with their dollars because of the lack of diverse humane or animal-free options.[145] This inability promotes the continued inhumane treatment of animals, which increases stress on animals and in result the spread of disease.

B. Consumerism

"Consumerism is the idea that increasing the consumption of goods and services purchased in the market is always a desirable goal."[146] Keeping animals at an increased density causes the price of animal products to decrease.[147] This price fall has fuelled a per capita increase in the amount of animals consumed coupled with a growing population.[148] Between 1961 and 2020 the rate of animal consumption per person doubled across the world.[149] This was only possible due to a shift from raising animals on family farms to factory farms. Factory farms are putting small farmers out of business reducing consumers' ability to purchase humane products.[150] "In recent years, industrial livestock production has grown at twice the rate of more traditional mixed farming systems and at more than six times the rate of production based on grazing."[151] This rate of consumption has led to "[t]he United Nations Food and Agriculture Organization estimate[ing] that about 80 billion" land animals are slaughtered each year for food.[152] " [W]e kill hundreds of millions of fish, 900,000 cows, 1.4 million goats, 1.7 million sheep, 3.8 million pigs, 11.8 million ducks, and more than 200 million chickens every day."[153] Consuming this many animals is the result of factory farms.[154]

The animal products industry is nonfunctioning in three main ways. The first is that labelling is not accurate, meaningful, or standardised in a way to be useful for consumers to make informed decisions.[155] The second reason, is that Ag Gag Laws prevent consumers from

141 David Attenborough: A Life On Our Planet, Netflix (2020). See also: Hanna Ritchie, If the world adopted a plant-based diet, we would reduce global agricultural land use from 4 to 1 billion hectares, Our World in Data (Mar. 4, 2021), https://ourworldindata.org/land-use-diets.

142 Philip J Tuso, et Al., Nutritional Update for Physicians: Plant-Based Diets, Perm J (2013), https://pmc.ncbi.nlm.nih.gov/articles/PMC7912826/.

143 Dictionary.com, Free Market, https://www.dictionary.com/browse/free-market (last visited May 30, 2024).

144 Jay P Graham, et. Al., The Animal-Human Interface and Infectious Disease in Industrial Food Animal Production: Rethinking Biosecurity and Biocontainment, Public Health Rep (2008), https://pmc.ncbi.nlm.nih.gov/articles/PMC2289982.

145 Yuwares Malila, et Al., Current Challenges of Alternative Proteins as Future Foods, Nature (2024), https://www.nature.com/articles/s41538-024-00291-w.

146 Adam Hays, Consumerism: Definition, Economic Impact, Pros & Cons, Investopedia (July 14, 2024), https://www.investopedia.com/terms/c/consumerism.asp.

147 Id.

148 Id.

149 Our World in Data, Per Capita Meat Consumption by Type, 1961 to 2020, https://ourworldindata.org/grapher/per-capita-meat-consumption-by-type-kilograms-per-year?tab=table (last visited on Oct 24, 2023).

150 Chris McGreal, How America's Food Giants Swallowed the Family Farms, Guardian (Mar. 09, 2019), https://www.theguardian.com/environment/2019/mar/09/american-food-giants-swallow-the-family-farms-iowa.

151 Gowri Koneswaran & Danielle Nierenberg, Global Farm Animal Production and Global Warming: Impacting and Mitigating Climate Change, Nat'l Lib of Med. (Jan 2008).

152 Ezra Klein, We Will Look Back on This Age of Cruelty to Animals in Horror, N.Y. Times (Dec. 16, 2021), https://www.nytimes.com/2021/12/16/opinion/factory-farming-animals.html.

153 Max Roser, How Many Animals get Slaughtered Every Day?, Our World In Data (2023), https://ourworldindata.org/how-many-animals-get-slaughtered-every-day#article-citation.

154 Elise Pohl & Sang-Ryong Lee, Local and Global Public Health and Emissions from Concentrated Animal Feeding Operations in the USA: A Scoping Review, Int J Environ Res Public Health (July 13, 2024), https://pmc.ncbi.nlm.nih.gov/articles/PMC11276819/.

155 Jessica Scott-Reid, The "Humanewashing" of America's Meat and Dairy, Explained, Vox (Dec. 12, 2021), https://www.vox.com/22838160/animal-welfare-labels-meat-dairy-eggs-humane-humanewashing.

knowing where their food comes from.[156] The third reason, is the lack of alternatives to animal-based products and foods.[157] Often plant-based products are more expensive than animal based products.[158] The cost point can prohibit certain consumers from prioritising plant-based products.[159] Animal-based products are less expensive because of the government subsidisation of factory farms and the volume that they function at.[160] Most of the British public care deeply for the wellbeing of animals, which is why factory farms take such extreme measures to humane wash.[161]

i. Humane Washing

Companies promote the consumption of animals by masking the harsh truth of their treatment. Humane washing is "defined as the dissemination of false or deceptive information by companies to promote the perception that its products are animal-friendly, or as 'symbolic information emanating from within an organization without substantive actions.'"[162] Deceptively promoting happy animals is achieved in several ways, including advertising nice pictures of farms with cows on never-ending scenic pastures. These depictions do not match the reality of the cows restricted movement, faeces covered, unnatural, and unhealthy life.[163] "Because of the stress induced by these conditions, including the constant frustration of their natural instincts, many animals develop compromised immune systems, and without a steady course of antibiotics, many more would become sick and die of bacterial infections."[164] The boxes and cartons contain phrases such as "natural" or "humanely raised" that have been shown to boost sales, proving that consumers are trying to promote the welfare of animals.[165] These phrases are conveniently undefined by the USDA, so companies can use them without tying them to action or being subject to consequences for their use.[166]

The regulating legislation is the Animal Welfare Act, which excludes animals used for food, meaning they are not regulated by the USDA.[167] This lack of federal legislation leaves a patchwork of State legislation that fails to hold factory farms accountable because the regulations often only cover slaughter and the handling of animal products, not how animals are raised on farms.[168] When it comes to inspections "Most livestock production industries in the United States have developed and implemented science-based animal care guidelines."[169] These guidelines mean the industry is writing the standards and regulating themselves.[170]

Even when labels are considered accurate, they are often misleading. For example, when "cage free eggs" was introduced,[171] this label was placed on products featuring animals who were already cage free, resulting in no welfare gain for the animals.[172] Further, the animals may still be in crowded, dark, and unsanitary conditions but are just not technically in cages. For example, chickens bred for meat called broilers are often packed into large warehouses where they are not able

156 Caitlin A. Ceryes1 & Christopher D. Heaney, "Ag-Gag" Laws: Evolution, Resurgence, and Public Health Implications, 28 New Solut. 664 (May 1, 2020), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7195182/.
157 Id. at 665.
158 Daniel Francisco Pais, António Cardoso Marques, & José Alberto Fuinhas, The Cost of Healthier and More Sustainable Food Choices: Do Plant-Based Consumers Spend More on Food?, 10 Agric Food Econ. 18 (2022.)
159 Id. at 21.
160 Indira Joshi, et al., Saving the Planet the Market for Sustainable Meat Alternatives, Sutarja Center (2015), https://scet.berkeley.edu/wp-content/uploads/CopyofFINALSavingThePlanetSustainableMeatAlternatives.pdf.
161 HSI Pre-election 2023 Poll, Focaldata (Aug. 2023), https://dashboard.focaldata.com/public/a1154b0d-f8f8-4378-8c21-a4c19ef770f9.
162 Saskia Stucki, (Certified) Humane Violence? Animal Welfare Labels, the Ambivalence of Humanizing the Inhumane, and What International Humanitarian Law Has to Do with It, Cambridge Uni. Press (Sep. 18, 2017), https://www.cambridge.org/core/journals/american-journal-of-international-law/article/certified-humane-violence-animal-welfare-labels-the-ambivalence-of-humanizing-the-inhumane-and-what-international-humanitarian-law-has-to-do-with-it/392364E807DAB7FFBCC8FC41F1502744.
163 Jessica Scott-Reid, The "Humanewashing" of America's Meat and Dairy, Explained, Vox (Dec. 12, 2021), https://www.vox.com/22838160/animal-welfare-labels-meat-dairy-eggs-humane-humanewashing.
164 Jonathan Anomaly, What's Wrong With Factory Farming?, Public Health Ethics (Feb. 7, 2014), https://pmc.ncbi.nlm.nih.gov/articles/PMC9757169/.
165 Id.
166 Id.
167 The Animal Welfare Act P. L. 89-544, 80 Stat. 350 , 7 USCS §§ 2131 nt., 2131 et seq. (1966).
168 Id.
169 Id.
170 Id.
171 Jonathan Anomaly, What's Wrong With Factory Farming?, Public Health Ethics (Feb. 7, 2014), https://pmc.ncbi.nlm.nih.gov/articles/PMC9757169/.
172 Id.

to see the light of day. They are not in cages but "[i]t is common for there to be less than one square foot allocated per individual bird at the final weight."[173] When consumers want to choose humane products the labelling is often intentionally confusing, resulting in consumers finding it difficult to choose which products follow through with their claims. Further, when companies perform humane practices, they often receive no benefit because the actions are lost in the sea of humane washed products.[174] Requiring consumers to be informed on misleading labels inequitably places the burden on them to research labels that should be regulated.

ii. Ag Gag Laws

In some states in the US, the animal agriculture industry has successfully illegalised informing consumers about the conditions of animals in factory farms in the form of Ag Gag Laws.[175] Ag Gag laws "intentionally limit public access to information about agricultural production practices, particularly livestock production."[176] These laws prosecute anyone who takes footage inside of a factory farm specifically showing the treatment of animals.[177] The laws also prosecute individuals who pose as a job applicant with "improper motives to commit a prohibited act."[178] These laws fail the market by prohibiting consumers from being able to choose which animal products to purchase based on how the animals are treated.[179] Ag Gag laws prohibit consumers from witnessing what inhumane and unhealthy practices they are promoting and where their food comes from.[180]

These laws are created by the animal agriculture industry and the American Legislative Exchange Council.[181] The council opposes any "unnecessary government imposed restrictions on agricultural businesses."[182] Given the minimum inspection of these facilities and lack of access to farms, the welfare of animals is left solely to the discretion of the agribusiness.[183] In addition to failing animal protections, these laws promote poor mental and physical health outcomes for workers, consumers, and surrounding communities.[184]

iii. Access to Animal Product Alternatives

Even when consumers can identify humanely made products there can still be barriers to their access.[185] Christopher Bryant provides that the "primary drivers of food choice are price, taste, healthiness, and convenience"[186] There are many false narratives that promote these issues including that animal products are healthy or that vegan food is not tasty.[187] Even when a consumer is ready to eat more plant-based foods, local stores and restaurants often avoid providing adequate options.[188] If these misconceptions were dispelled and equitable access to humane products was given to consumers, we might see a large shift in the market.[189]

The homogenization of the food system makes it hard for new products to be introduced and to find permanent spaces on shelves. Margot Pollans provides that "[u]niformity across the food system, which is increasingly a global phenomenon, serves to sterilize diverse food

173 Dennis Brothers, New Farmer's Guide to the Commercial Broiler Industry: Poultry Husbandry & Biosecurity Basics, Alabama Uni. Ext. (Oct. 20, 2022), https://www.aces.edu/blog/topics/farm-management/new-farmers-guide-to-the-commercial-broiler-industry-poultry-husbandry-biosecurity-basics/.
174 Margot J. Pollans, Eaters, Powerless by Design, 120 Mich. L. Rev. 643, 649 (2022).
175 Caitlin A. Ceryes1 & Christopher D. Heaney, "Ag-Gag" Laws: Evolution, Resurgence, and Public Health Implications, 28 New Solut. 664 (May 1, 2020), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7195182/.
176 Id.
177 Id.
178 Id.
179 Id.
180 Id. at 665.
181 Id.
182 Caitlin A. Ceryes1 & Christopher D. Heaney, "Ag-Gag" Laws: Evolution, Resurgence, and Public Health Implications, 28 New Solut. 664 (May 1, 2020), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7195182/.
183 Id.
184 Id.
185 Rui Pedro Fonseca1 & Ruben Sanchez-Sabate, Consumers' Attitudes Towards Animal Suffering: A Systematic Review on Awareness, Willingness and Dietary Change, 19 Int J Environ Res Public Health 16372 (2022).
186 Christopher Bryant, Plant-based animal product alternatives are healthier and more environmentally sustainable than animal products, 6 Future Foods 100174 (Dec. 2022), https://www.sciencedirect.com/science/article/pii/S2666833522000612.
187 Id.
188 Id. at 100184.
189 Victor Spain, et. Al., Are They Buying It? United States Consumers' Changing Attitudes toward More Humanely Raised Meat, Eggs, and Dairy, Animals (Basel) (July 25, 2018), https://pmc.ncbi.nlm.nih.gov/articles/PMC6116027/.

cultures, suppress creative expression that falls outside narrowly defined food norms, and homogenize the experience of food consumption."[190] In this case, the market uniformity is using inhumane animal products in most products causing inelasticity and waste in the system.[191] Even to eat a plant-based meal on an international flight on most airlines you have to specifically order it beforehand.[192] This is caused by the "consolidation of food production and distribution."[193] The top down control of food systems causes homogenization that prohibits the market from moving forward, for instance with more humane products. The shift to plant-based diets could help prevent the next pandemic by lowering the demand for animal products, which would improve animal welfare.[194] This shift will likely not occur without global cooperation requiring industries to make these products available.

C. The Feedback Loop of Human Consumption of Animals, Climate Change, and Zoonotic Disease

Climate change contributes to zoonotic disease in several ways. The first is that rising temperatures increase the spread of disease by creating more hospitable areas for certain vector species such as mosquitoes.[195] The second is that rising temperatures and loss of ecosystems cause more frequent interactions between wild animals and humans, increasing the spread of disease.[196] Finally, increased temperatures and ecosystem loss cause individuals to expand their habitat and vary their diet.[197] This broader consumption of foods and increased animal encounters results in a larger exposure to disease.

The creation and spread of zoonotic disease is made exponentially worse by climate change, which results in the urgency to reduce the use of mega farms. Beyond the conditions of factory farms, the use of animals as products greatly contributes to climate change in three main ways. The first is that animals such as cows are large emitters of methane.[198] "A single cow produces between 154 to 264 pounds of methane gas per year. Not counting for the emissions of any other livestock, 1.5 billion cattle, raised specifically for meat production worldwide, emit at least 231 billion pounds of methane into the atmosphere each year."[199] Estimates show that methane has about 20 to 100 times the climate warming effect compared to CO2.[200]

The resource intensiveness of factory farms is the second reason that animal agriculture contributes to global warming. The resources used for factory farms include enormous amounts of energy; processing of the animals waste, land use for the animals and their feed, but also the resources used for the production of food to feed the animals.[201] "According to the [Food and Agriculture Organization] FAO's estimates, CO2 emissions from farm animal processing total several tens of millions of metric tons per year," this equates to about 12% - 16% of all global greenhouse gas emissions.[202] Finally, natural spaces are being depleted for agriculture. More land is cleared to

190 Margot J. Pollans, Eaters, Powerless by Design, 120 Mich. L. Rev. 643, 657 (2022).
191 Ann Linder, et. Al., Animal Markets and Zoonotic Disease in the United States, New York University, 10 (2023), https://animal.law.harvard.edu/wp-content/uploads/Animal-Markets-and-Zoonotic-Disease-in-the-United-States.pdf.
192 Delta, Special Meals, https://www.united.com/en/us/fly/travel/inflight/special-meals.html (last visited on June 7, 2024).
193 Margot J. Pollans, Eaters, Powerless by Design, 120 Mich. L. Rev. 643, 658 (2022).
194 Jay P Graham, et. Al., The Animal-Human Interface and Infectious Disease in Industrial Food Animal Production: Rethinking Biosecurity and Biocontainment, Public Health Rep (2008), https://pmc.ncbi.nlm.nih.gov/articles/PMC2289982.
195 Bob Jordan, How does Climate Change Affect Disease, Stanford Earth Matters Mag. (Mar 15, 2019), https://earth.stanford.edu/news/how-does-climate-change-affect-disease.
196 Bob Jordan, Stanford Researchers Show How Forest Loss Leads to Spread of Disease, Stanford News (Apr 8, 2020), https://news.stanford.edu/2020/04/08/understanding-spread-disease-animals-humans.
197 Id.
198 Environmental Protection Agency, Agriculture and Aquaculture: Food for Thought (Oct. 2020), https://www.epa.gov/snep/agriculture-and-aquaculture-food-thought.
199 Id.
200 Andrew Moseman, Why do We Compare Methane to Carbon Dioxide Over a 100-year Timeframe? Are we Underrating the Importance of Methane Emissions?, MIT (July 6, 2023), https://climate.mit.edu/ask-mit/why-do-we-compare-methane-carbon-dioxide-over-100-year-timeframe-are-we-underrating.
201 Id.
202 Id.
see also: Dominik Wisser, et Al., Pathways towards lower emissions A global assessment of the greenhouse gas emissions and mitigation options from livestock agrifood systems, FAO (2023).

raise cows than for any other purpose.[203] The use of animals for food is unsustainable at the current rate of consumption.

Biodiversity loss also contributes to global warming by causing the ecosystems to become less resilient.[204] Further, "[l]oss of biodiversity can exacerbate the risk of pathogen spillover."[205] The less diverse the sources of food the more likely that animals are feeding from the same places, causing the increased likelihood of the spread of disease.[206] Plants used to feed farmed animals could be grown in a sustainable way to feed people directly, while lowering land use and the need for encroachment on natural lands, which would prevent the creation and spread of zoonotic disease.[207]

The rise in animal consumption fuels deforestation and ecosystem loss, which converts land that draws down emissions into high-emitting land uses. Often, animal agricultural land comes from burned forests which further releases carbon dioxide and hurts biodiversity. The increase in animal consumption requires more food to be produced to feed the animals, while the rising temperatures make it more challenging and resource-intensive to produce their food. For example, potable water has started to be a diminishing resource with the drying up of aquifers.[208] One of the main problems with animal agriculture is the disproportionately high amount of water it takes to produce animal products. To produce "vegetables [they] had a footprint of about 322 liters per kg, and fruits drank up 962, meat was far more thirsty: chicken came in at 4,325l/kg, pork at 5,988l/kg, sheep/goat meat at 8,763l/kg, and beef at a stupendous 15,415l/kg."[209] The increased temperatures caused by factory farm emissions is ideal for the spread of disease.[210] This feedback loop increases the ways and likelihood that zoonotic diseases are spread.

Companies are fuelling the rise in meat consumption. Consumerism is furthering the commodification of animals through several techniques. One is to make consumers feel good about their purchases by humane washed advertising and therefore distracting from their practices. Ag Gag laws are enacted to prevent consumers' awareness of the treatment of animals. Finally, by creating an industry based on animal products that is so homogenous that it prevents alternatives or changes in the market. These practices then worsen global warming causing poor corporate responsibility and consumerism to result in exponential damage to the environment and animals. To counter such a coordinated effort on this scale, the world must ratify a treaty promoting standards that will reduce animal consumption and promote the wellbeing of animals, resulting in better outcomes for consumers.

Global Problems Like Zoonotic Disease Need Global Solutions

Anna Peters in Studies in Global Animal Law provides that "Global animal law refers to the sum of legal rules and principles (both State made and non-State made) governing the interaction between humans and other animals, on a domestic, local, regional, and international level."[211] Global animal law is more than statutes and treaties; it also consists of food labels, codes of conduct, and industry norms.[212] Just as there is diversity in what constitutes global animal law the same diversity exists in who can make it, including governments, businesses, organisations, and citizens by engaging with their local representatives.

203 Matthew N. Hayek, The Infectious Disease Trap of Animal Agriculture, National Library of Medicine (Nov 2022).
204 Pennsylvania State University, Biodiversity and Ecosystem Resilience, https://www.e-education.psu.edu/geog30/node/398 (last visited Oct 24, 2023).
205 Bryony Jones, et. al., Zoonosis Emergence Linked to Agricultural Intensification and Environmental Change, Nat'l Lib of Med. (May 2013).
206 Id.
207 Cara Buckley, Save the Planet, Put Down that Hamburger, N.Y. Times (Sep. 15, 2023), https://www.nytimes.com/2023/07/21/climate/diet-vegan-meat-emissions.htmls.
208 Michel Doreau, Michael Corson, & Stephen Wiedemann, Water Use By Livestock: A Global Perspective For a Regional Issue?, 2 (2) Animal Frontiers 9-16 (Apr. 1 2012), https://doi.org/10.2527/af.2012-0036.
209 Bibi van der Zee, What is the True Cost of Eating Meat?, The Guardian (May 18, 2018), https://www.theguardian.com/news/2018/may/07/true-cost-of-eating-meat-environment-health-animal-welfare.
210 Xinbo Lian, et Al., Heat waves accelerate the spread of infectious diseases, Environ Res. (May 18, 2023), https://pmc.ncbi.nlm.nih.gov/articles/PMC10191724/.
211 Anna Peters, Introduction, Studies in Global Animal Law, 1 (Anna Peters, ed., 2020).
212 Id. at 1-2.

In a global environment, it is not enough for one country to make a change.

Global Animal Law furthers states that the "animal-processing industry (for food and pharmaceuticals) is a global industry and thrives on global trade. Even if one country attempts to improve welfare standards, for example for the caging of livestock, for slaughter, or for animal experiments, it cannot do so unilaterally if it wants to be effective."[213] When one country raises its welfare standards the company will likely move operations to a country that has lower welfare standards, which is called leakage. [214] Countries are unable to control the laws outside of their boarders, the result is that there is no global welfare gain.[215]

An example of why it is important to have a global treaty is the leakage that is the result of the prohibition on horses being slaughtered in the US.[216] Instead, of slaughtering horses in the US they are raised in the US and then shipped to either Mexico or Canada to be slaughtered.[217] Animals do not benefit from the new standards and now have to endure long journeys, often without food or water. Further, more disease is spread as "[r]ecent research shows that segments of DNA conferring drug resistance can jump between different species and strains of bacteria with disturbing ease, an alarming discovery. By simply driving behind chicken transport trucks, scientists collected drug-resistant microbes from the air within their cars."[218] Zoonotic diseases are just or more likely to be formed and spread with the transfer of the animals.

There are few treaties that address the well-being of animals on an international scale. One is the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) currently prevents international wildlife trade of endangered species and has some provisions concerning the wellbeing of transported animals.[219] "Article III, para-graph 2(c) and Article IV, paragraph 2(c) states the requirements for granting an export permit of live wildlife protected by the treaty: '[T]he State of export is satisfied that any living specimen will be so prepared and shipped as to minimise the risk of injury, damage to health or cruel treatment.'"[220] CITES only regulates the trade of listed species and the welfare gain only applies to the shipment of live animals.[221]

There are several ways that States can work together to prevent zoonotic diseases. The first part of this section will look at international law in general and the approaches taken. The second part of this section looks at the World Organization for Animal Health. The third section will look at the Proposed UN Convention on Animal Health, and Protection. The fourth section will look at the proposed Convention on Animal Protection (CAP). The fifth section will analyse the World Health Organization's proposed treaty to prevent zoonotic disease. If the world works together to improve animal wellbeing it will also improve the chances of preventing the next pandemic.

A. International Law and the Proposed Treaties that Include Animal Protection Provisions

An international treaty would likely help protect animals and could prevent the next pandemic.[222] The first step is for countries to negotiate and ratify a treaty with an implementation plan. To create a treaty that would have benefits for animals and prevent disease a one health approach is needed. A one health approach consists of "[m]ultisectoral and transdisciplinary actions should recognize the interconnection between people, animals, plants and their shared environment, for which a coherent, integrated and unifying

213 Id. at 5.
214 Id.
215 Id.
216 Cyril Roy & Michael Cockram, Patterns and Durations of Journeys by Horses Transported From the USA to Canada for Slaughter, 56 Can Vet J. 581 (2015).
217 Id.
218 Melinda Wenner Moyer, How Drug-Resistant Bacteria Travel from the Farm to Your Table, Sci. Am. (Dec. 1, 2016), https://www.scientificamerican.com/article/how-drug-resistant-bacteria-travel-from-the-farm-to-your-table/.
219 Convention on International Trade in Endangered Species of Wild Fauna and Flora, Mar. 6, 1973, 27 UST 1087, TIAS No. 8249, 993 UNTS 243. (1963).
220 Id. see also:
David S. Favre, An International Treaty for Animal Welfare, Michigan State Uni. College of Law (2012).
221 Id.
222 Ann Linder, et. Al., Animal Markets and Zoonotic Disease in the United States, New York University, 10 (2023), https://animal.law.harvard.edu/wp-content/uploads/Animal-Markets-and-Zoonotic-Disease-in-the-United-States.pdf.

approach should be strengthened and applied."[223] Though not stated in CAP the proposed treaty, CAP, UNCAHP, and the WHO take a holistic approach.

In 2023, there was a Quadripartite call to action for One Health for a safer world. The international organisations involved included The Food and Agriculture Organization of the United Nations (FAO), United Nations Environment Programme (UNEP), World Health Organization (WHO), and World Organisation for Animal Health (WOAH). They came together to "Prioritize One Health in the international political agenda."[224] There must be a move beyond these provisions to promote animal welfare. This approach requires that when designing animal welfare provisions for treaties, the environment and humans must also be considered.[225]

There has been a history of international animal policy, which CAP, WHO, and the proposed convention can build on. In 1978, UNESCO proclaimed the Universal Declaration of Animal Rights.[226] This proclamation sounds progressive but, "[d]eclarations may be public statements about something, but they do not bind States to actually do or stop doing anything."[227] Next in 2003, the proposed intergovernmental agreement Universal Declaration of Animal Welfare has yet to be adopted.[228] In 2022, United Nations Environment Assembly of the United Nations Environment Programme adopted the Resolution called the Animal welfare–environment–sustainable development nexus.[229] The Resolution commissioned a findings on the "nexus between animal welfare, the environment and sustainable development, identifying key partners and stakeholders to consult."[230] Though, a binding international treaty to prevent the next pandemic through improved animal welfare has not been adopted.

D. World Organization for Animal Health

The intergovernmental organization called the World Organization for Animal Health was established in 1924 from the International Agreement for the creation of an Office International des Epizooties Treaty.[231] Twenty-eight States ratified the treaty at the time and now there are 183 members,[232] "the Organisation and its Members coordinate the global response to animal health emergencies, the prevention of zoonotic diseases, the promotion of animal health and welfare, and better access to animal health care."[233] The treaty has eight articles that lay out how the organization works and how the treaty will be ratified.[234]

WOAH works on many of the issues discussed above. The first is that they are coordinating the response to the avian flu.[235] WOAH also stresses the responsible use of antibiotics to prevent antimicrobial resistance.[236] One piece of advice for farmers is to "Follow good farming and/or husbandry practices to avoid stress in your terrestrial and aquatic animals, which lower their natural defences."[237] The treaty emphasises both disease prevention and improved animal welfare. Though, WOAH's strategic plan only mentions disease

223 World Health Organization Convention, Agreement or Other International Instrument on Pandemic Prevention, Preparedness and Response, art. 5 [hereinafter WHO].
224 Quadripartite call to action for One Health for a safer world, the Food and Agriculture Organization of the United Nations (FAO), United Nations Environment Programme (UNEP), World Health Organization (WHO) and World Organisation for Animal Health (WOAH) (2023), https://www.unep.org/news-and-stories/statements/quadripartite-call-action-one-health-safer-world.
225 Ioannis Tsagkarliotis & Nikolaos Rachaniotis, A holistic approach in epidemics, 11 Front Public Health 1263293 (Nov. 13, 2023), 10.3389/fpubh.2023.1263293.
226 Universal Declaration of Animal Rights, UNESCO (1978), https://constitutii.wordpress.com/wp-content/uploads/2016/06/file-id-607.pdf.
227 David S. Favre, An International Treaty for Animal Welfare, Michigan State Uni. College of Law (2012).
228 Universal Declaration on Animal Welfare, World Society for the Protection of Animals (2003), https://europarregina.eu/wp-content/uploads/2023/05/udaw-universal-declaration-on-animal-welfare-wspa.pdf.
229 United Nations Environment Assembly of the United Nations Environment Programme, Fifth session, Resolution adopted by the United Nations Environment Assembly on 2 March 2022 (2022).
230 Id.
231 International Agreement for the creation of an Office International des Epizooties IEA 2602 (2024).
232 Id.
see also: Who we are, WOAH, https://www.woah.org/en/who-we-are/.
233 International Agreement for the creation of an Office International des Epizooties IEA 2602 (2024).
234 Id.
235 Infection with high pathogenicity avian influenza viruses, Terrestrial Animal Health Code, Article 10.4.1. (2024).
236 Antimicrobial resistance, WOAH, https://www.woah.org/en/what-we-do/global-initiatives/antimicrobial-resistance/#you-are-a-farmer-or-aquatic-animal-producer.
237 Id.

prevention once and it was in reference to trade.[238] The lack of prevention measures being implemented by WOAH leaves a large gap in international regulations in addressing disease prevention.

E. A Proposed UN Convention on Animal Health, and Protection

The UN Convention on Animal Health and Protection (UNCAHP) was first proposed in 2018.[239] The Convention states the "purpose of this Convention is to protect animals, their welfare and their health."[240] The convention emphasises a one health approach,[241] and the goal of the convention is to have enough ratified member States to implement the treaty by 2029.[242] The American Bar Association called for a global animal law treaty and mentioned UNCAHP in its resolution in 2021.[243] If the proposed treaty is adopted it could result in positive outcomes for animal wellbeing and health and in consequence lower the spread of disease.

Some of the guiding principles are implementing the three Rs and the Five Freedoms. The three R's are defined as "reduction in numbers of animals, refinement of experimental methods and replacement of animals with non-animal techniques."[244] For farmed animals this provision could help improve animal outcomes by reducing the number of animals consumed.[245] This reduction can be achieved from either higher consumption of plant based products or replacing animals with lab grown animal products.[246] This concept is combined with the five freedoms which consist of animals "freedom from hunger, thirst and malnutrition; freedom from fear and distress; freedom from physical and thermal discomfort; freedom from pain, injury and disease; and freedom to express normal patterns of behavior."[247] If these standards were adopted it would require more space per animals and more expenditure on animal welfare resulting in the animal products industry becoming unprofitable.[248] This lower density of animals would likely drive up costs and reduce consumption of animals.[249] The treaty also emphasises ending cruelty toward animals, though given the state of animal welfare internationally it is likely to be more symbolic than practical.[250] Though zoonotic disease prevention is not the goal of the treaty if it were passed it would likely be the outcome because any improvement in animal welfare will reduce the conditions that are most likely to cause disease.

F. The Second Draft of the Convention on Animal Protection BIS DA

There is currently no international animal treaty that focuses on both the welfare of animals and the prevention of disease. The International Coalition for Animal Protection released the second draft of the CAP in November 2022.[251] CAP gained traction because of its focus on preventing the next pandemic through promoting animal wellbeing.[252] Though, no State has ratified the treaty or signaled their intention to do so, making it unlikely that the treaty will be implemented.[253] The proposed treaty even specifically prevents the non-therapeutic use of antibiotics in domestic animals.[254] The subsection of the provisions includes the

238 OIE Seventh Strategic Plan for the period 2021–2025, WOAH, 88 SG/14 (2021).
239 UN Convention On Animal Health and Protection (UNCAHP), The Global Animal Law Gal Association (2018).
240 Id. at Objective.
241 Id. at Preamble.
242 UNCAHP Timeframe, UNCAHP, https://www.uncahp.org/ (last visited on Dec. 22, 2024).
243 International Law Section Tort Trial And Insurance Practice Section, American Bar Association, Resolution 101 C (Feb. 22, 2021), https://www.americanbar.org/content/dam/aba/administrative/news/2021/02/midyear-resolutions/101c.pdf
244 Id. at Art. 2.
245 Christopher Bryant, et Al., A review of policy levers to reduce meat production and consumption
Author links open overlay panel, 203 Appetite 107684 (Dec. 2024), https://www.sciencedirect.com/science/article/abs/pii/S0195666324004872.
246 Id.
Joanna Thompson, Lab-Grown Meat Approved for Sale: What You Need to Know, Sci. Am. (Jun. 30, 2023), https://www.scientificamerican.com/article/lab-grown-meat-approved-for-sale-what-you-need-to-know.
247 UN Convention On Animal Health and Protection (UNCAHP), The Global Animal Law Gal Association, Art. 2 (2018).
248 Christopher Bryant, et Al., A review of policy levers to reduce meat production and consumption
Author links open overlay panel, 203 Appetite 107684 (Dec. 2024), https://www.sciencedirect.com/science/article/abs/pii/S0195666324004872.
249 Id.
250 Id. at Art. 4.
251 CAP, supra note 28, at art. 2.
252 Id.
253
254 CAP, supra note 28, at art. 6.

creation and support of veterinarian services, the capacity to monitor animals' wellbeing, and requiring countries to develop guidelines for the improved treatment of animals.[255] Another provision provides for the regulation of the supply chain of animals, investment in pandemic prevention, and the encouragement of sharing information.[256] This section will propose possible new provisions, though this will likely not improve the chances of passing the treaty.[257] These specific provisions would help prevent the next pandemic if implemented by improving health outcomes for animals that would prevent the creation and spillover of diseases.

i. CAP's Trade Provisions and Consumerism

CAP Article 8 features three main provisions that regulate trade and trade agreements. The first provision addresses the wellbeing of live animals and animals used for animal products, including transportation and trade.[258] As discussed earlier, it is important to address animal transportation and trade since it drives the spread of infectious diseases.[259] The Article also addresses living standards and proposes that the "Contracting Party shall encourage that State to adopt standards that meet or exceed the obligations set out in this Convention."[260] Some of these standards include lowering transportation times, preventing overcrowding of animals, and promoting animals' ability to be in the natural environment. If in a third version stronger language is used, then this provision could provide nation-states an outlet to prevent the importation of animals that have lower living standards than they are providing. Either way, it will at least set a floor for important issues.

The second provision provides that animals are to be considered in international trade agreements by ensuring that the treaties do not lower the living conditions of animals, which could gradually raise the floor of animal welfare standards. Given that the transfer of disease between farms is heightened with travel this could improve zoonotic disease outcomes. The final provision states that "[n]o Contracting Party shall weaken or reduce its levels of protection for animal wellbeing as an encouragement for trade or investment."[261] This provision might help prevent companies from moving animal production to countries that hold lower animal welfare standards, helping prevent the spread of disease.[262] This section of the treaty could include improving the rights of States to set animal welfare import standards. These standards could create the first race to the top by States being able to prevent products with lower welfare standards from entering their market.

ii. The Protocols Provision and Suggested Protocols

The protocols provision is the part of the treaty that holds the greatest promise for raising animal welfare standards. The creation of protocols could be the most efficient way to pass an overarching treaty and subsequently create stricter standards. An "Optional Protocol to a Treaty is an instrument that establishes additional rights and obligations [and is] . . . subject to independent ratification. Such protocols enable . . . a framework of obligations which reach further than the general treaty and to which not all parties of the general treaty consent."[263] This provision means that any State can independently sign the protocols on top of signing the treaty.

States signing protocols create a 'two-tier system' where States that sign the CAP treaty would then have the option to sign the protocols.[264] An example of a protocol could be living standards for farmed animals. The protocol could include the size of their living spaces, the ability to socialise with other animals, and the prevention of inhumane farming practices. Though it seems this is a little outside of the proposal of the treaty, this is counteracted by

255 Id.
256 CAP, supra note 28, at art. 8.
257 Rajesh K Reddy & Joan Schaffner, The Convention on Animal Protection: The Missing Link in a One Health Global Strategy for Pandemic Prevention, Global Journal of Animal Law (Aug. 02, 2022), https://ojs.abo.fi/ojs/index.php/gjal/article/view/1755.
258 CAP, supra note 28, at art. 8.
259 Eric M. Fèvre, et al., Animal Movements and the Spread of Infectious Diseases, Nat'l Lib of Med. (Feb 7, 2006).
260 CAP, supra note 28, at art. 8.
261 Id.
262 Anna Peters, Introduction, Studies in Global Animal Law, 5 (Anna Peters, ed., 2020).
263 UN, Definitions, https://treaties.un.org/Pages/overview.aspx?path=overview/definition/ (last visited on Oct 24 2023).
264 CAP, supra note 28.

a provision that reads "Protocols are not limited by the provisions herein and may cover any topic concerning the wellbeing or protection of animals."[265] Protocols could also include enforcement provisions that would improve compliance of the Protocols.

The protocols could provide a third-party standard that countries and organisations could leverage to prohibit the import or funding of the mistreatment of animals, and subsequently decrease the likelihood of the spread of disease. These protocols would hopefully have a race-to-the-top effect by requiring companies to meet these new welfare standards to stay competitive. For example, countries could restrict the import of animal products produced in facilities that failed to meet the country's animal welfare standards. Further, because it was conducted under a treaty it would be the most recent treaty meaning that it would supersede GATT.[266] Finally, the protocols could be standards that citizens could petition their countries to join, and companies could independently follow to support consumers' wishes. An international standard could improve the treatment of animals that governments, organisations, companies, or citizens can point to as a high standard.

iii. Proposed Articles to the Treaty

While the proposed treaties would make a significant impact on animal welfare, there are opportunities to go further to strengthen protections for animal wellbeing. The first is an enforcement provision that would hold countries accountable for non-compliance for both the setting and meeting of wellbeing standards, the mechanism to encourage compliance would be trade restrictions.[267] The second is a provision that prevents governments from subsidising factory farms, similar to the Agreement on Fishing Subsidies.[268] The third is an education provision that would require countries to put aside money to educate companies, employees, and children on the proper treatment of animals, such as outlined in UNCAHP.[269] The fourth is a prohibition on laws that silence how animals are treated such as ag gag laws, or laws that violate whistle blower protection as outlined by the UN.[270] The fifth is the required preference for non-animal-based options to be prioritised over animal-based options, as outlined in the Reduce, Reuse, and Replace provision provided in the Proposed Universal Declaration on Animal Welfare.[271] The final is a provision that prevents the creation of new factory farms, as outlined in the Plant Based Treaty.[272] All of these provisions would aim to increase the wellbeing of animals and subsequently to prevent the spread of disease, but would make it harder for the treaty to pass.

G. The World Health Organization's Convention, Agreement, or Other International Instrument on Pandemic Prevention

The second proposed treaty to help prevent the next pandemic is WHO's treaty called Bureau's text of the WHO convention, agreement or other international instrument on pandemic prevention, preparedness and response.[273] The WHO's proposed treaty is one of the first international treaties to include pandemic prevention and the most likely to be implemented.[274] The proposed treaty is the first

265 CAP, supra note 28, at art. 21.

266 Vienna Convention, supra n. 10, at pt. III, art. 30 "(stating that when all of the parties to one treaty are also parties to a subsequent treaty, the original treaty only applies to the extent that its provisions are compatible with those of the later treaty)." David S. Favre, An International Treaty for Animal Welfare, Michigan State Uni. College of Law (2012).

267 Steven J. Hoffman, et Al., International treaties have mostly failed to produce their intended effects, PNAS (Aug. 1 2022), https://doi.org/10.1073/pnas.2122854119.

268 Agreement On Fisheries Subsidies Ministerial Decision of 17 June 2022, Ministerial Conference Twelfth Session Geneva, 12-15 June 2022: "Ministerial Conference should adopt an agreement on comprehensive and effective disciplines that prohibits certain forms of fisheries subsidies that contribute to overcapacity and overfishing, and eliminates subsidies that contribute to IUU-fishing recognizing that appropriate and effective special and differential treatment for developing country Members and least developed country Members should be an integral part of these negotiations."

269 UN Convention On Animal Health and Protection (UNCAHP), The Global Animal Law Gal Association (2018).

270 Protection against retaliation for reporting misconduct and for cooperating with duly authorized audits or investigations, UN (Nov. 28, 2017), https://documents.un.org/doc/undoc/gen/n17/422/34/pdf/n1742234.pdf.

271 Universal Declaration on Animal Welfare, World Society for the Protection of Animals (2003), https://europaregina.eu/wp-content/uploads/2023/05/udaw-universal-declaration-on-animal-welfare-wspa.pdf.

272 Proposed Plant Based Treaty as a companion to the UNFCCC Paris Agreement, The Plant Based Treaty (2024): "No building of new animal farms."

273 WHO, supra note 28.

274 WHO welcomes historic commitment by world leaders for greater collaboration, governance and invest-

WHO treaty to consider the treatment of animals. The deadline to pass the treaty was in June of 2024, this deadline was unfortunately not met.[275] Though, the deadline passed the States continued to negotiate and reset the deadline for the next meeting in 2025.[276] Countries continued commitment to negotiating hopefully signals that an agreement will be achieved.

This section will discuss the proposed treaty, the first provision discussed is the prevention plan and surveillance provisions. The second provision analysed will be the provisions that mention farmed animals, and the third provision scrutinised will be the provision concerning the nontherapeutic use of antibiotics. The fourth will opine on the education provision, and finally, suggested provisions will be mentioned. Pandemic prevention will be futile without meaningfully including the wellbeing of animals because prevention through improved animal welfare standards is the best way to slow the spread of zoonotic diseases.[277]

i. Prevention Plan and Surveillance

The prevention plan reads, "Each Party shall develop, strengthen, implement, periodically update and review comprehensive multisectoral national infection prevention and control measures, plans and programmes, including those addressing zoonotic diseases and pathogens."[278] Given that the plan specifically includes zoonotic disease prevention, if properly implemented, it would improve animal wellbeing.[279] The prevention plan will require nation states to actively consider the consequences of their actions against animals and mitigate them.[280] Requiring States to consider their treatment of animals may have one of the largest effects on improving animal welfare. A step beyond this is the surveillance provision, which will make it possible to monitor the implementation of the plans. It reads, "Each Party shall develop, strengthen and maintain the capacity to carry out integrated surveillance."[281] Hopefully this will lead to more transparency of the handling of animals while creating State peer pressure to treat animals better.

ii. Farm Specific Provision

The proposed treaty specifically mentions improving the treatment of farmed animals. It presented a non-extensive list that included "measures concerning farms, the transport of animals, live animal markets, trade in wild animals and veterinary practices for both food-producing and companion animals, taking into account the relevant international standards."[282] This statement could be strengthened if it included the definition of animals. These broad statements include failing to define live animal markets, farms, trade in wild animals, and food-producing and companion animals. Though this provision remains important it might be difficult for States to follow or enforce these provisions if these definitions are undefined and accompanying standards are not set.

The WHO treaty lists some provisions to improve the health and wellbeing of animals. For example, it states that the measures to prevent disease include "water and feed hygiene, infection prevention and control measures, farm sanitation, hygiene and biosecurity, and animal welfare support measures."[283] The vagueness of these provisions could be improved by defining the measures for disease prevention in farms. For example, providing requirements on the minimum space for each animal, nutritional standards, and ensuring animals can exhibit natural behaviours that reduce stress.

ment to prevent, prepare for and respond to future pandemics, WHO (Sep. 20, 2023), https://www.who.int/news/item/20-09-2023-who-welcomes-historic-commitment-by-world-leaders-for-greater-collaboration--governance-and-investment-to-prevent--prepare-for-and-respond-to-future-pandemics.

275 Pandemic prevention, preparedness and response accord, WHO (June 10, 2024), https://www.who.int/news-room/questions-and-answers/item/pandemic-prevention--preparedness-and-response-accord.

276 Id.

277 Jay P Graham, et. Al., The Animal-Human Interface and Infectious Disease in Industrial Food Animal Production: Rethinking Biosecurity and Biocontainment, Public Health Rep (2008), https://pmc.ncbi.nlm.nih.gov/articles/PMC2289982.

278 WHO, supra note 28, at art. 4.

279 Miriam L. Shiferaw et. Al, Frameworks for Preventing, Detecting, and Controlling Zoonotic Diseases, Nat'l Lib of Med. (Dec 23, 2017).

280 WHO, supra note 28, at art. 4.

281 Id. at art. 5.

282 Id. at art. 4.

283 WHO, supra note 28, at art. 5.

iii. Antimicrobial Stewardship

The provisions addressing antimicrobial stewardship include equitable provisions and provisions about animals. The equitable provision states that it "increases investment in, and promotes equitable and affordable access to, new medicines, diagnostic tools, vaccines and other interventions."[284] This provision would help prevent the need for antibiotics, another provision focuses on the use of antibiotics in farmed animals. It states that the treaty "strengthens infection prevention and control in health care settings and sanitation and biosecurity in livestock farms, and provides technical support to developing countries."[285] This once again includes an equity provision by providing technical support to lower-income countries. Europe has banned the general use of antibiotics for animals used for food.[286] This is a stance the WHO already strongly supports.[287] It could be spelled out better in the treaty, especially given humans and animals' inability to fight antibiotic resistant infections.

iv. Education

A key component of a One Health approach is education on disease prevention.[288] The education provision of the treaty reads that States will "promote or establish One Health joint training and continuing education programs for human, animal and environmental health workforces, particularly for the veterinary and environmental services needed to prevent spillover events."[289] Though education is key to prevention, this provision could be strengthened if it included humane handling. It could also be broadened to include elementary and secondary education for humane education programs, which teaches children empathy toward animals, environmental stewardship, and social justice.[290] The best way to prevent the next pandemic is to train people in prevention through the humane treatment of animals.

v. Proposed Provisions

There are two proposed provisions that would improve the treaty's ability to prevent disease. The first is the prevention of future factory farms. As the number of factory farms spreads across the globe so does their propensity to spread disease. The treaty would not only prevent new countries from starting these practices it would slowly phase them out around the world. Another missing provision is an enforcement provision, there may not be any actual disease prevention measures implemented because there is no inherent accountability. The treaty would make great strides to improve the prevention of zoonotic disease.

There is a need for pandemic prevention through improving the wellbeing of animals. WOAH works on the aftermath of a pandemic that affects animals but fails to have provisions to prevent a pandemic. UNCAHP would improve the wellbeing of animals, but does not specifically address zoonotic disease and has not been adopted. If adopted CAP would hopefully improve animal welfare while addressing zoonotic disease prevention. Finally, Adoption of the WHO's proposed treaty would hopefully result in better outcomes for animals and zoonotic disease prevention. All of the treaties and proposals look at different aspects of zoonotic disease prevention and could work together harmoniously.

Conclusion

Humans, the environment, and animals are intrinsically linked, resulting in the need for treaties with a one health approach to prevent the

284 WHO, supra note 28, at art. 4.
285 Id.
286 Id.
See also: European Parliament and the Council of the European Union, Regulation (EU) 2019/4 of the European Parliament and of the Council of 11 December 2018 on the manufacture, placing on the market and use of medicated feed, amending Regulation (EC) No 183/2005 of the European Parliament and of the Council and repealing Council Directive 90/167/EEC, J of the EU (2019), https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX-:32019R0004&from=EN.
287 World Health Organization, Who Guidelines On Use of Medically Important Antimicrobials in Food-Producing Animals (2017), https://www.who.int/news/item/07-11-2017-stop-using-antibiotics-in-healthy-animals-to-prevent-the-spread-of-antibiotic-resistance.
288 Center for Disease Control and Prevention, One Health Basics (2023), https://www.cdc.gov/onehealth/basics/index.html.
289 WHO, supra note 1, at art. 4.
290 Heart, What is Humane Education, https://teachheart.org/(last visited on Dec. 20, 2023).

next pandemic. The international food system cannot be improved on an individual consumer basis. In the US even when consumers work to be informed it is not possible due to humane washing, Ag Gag Laws, and limited access to products that do not contain animals.[291] The prevention of the next pandemic will only be accomplished with the world moving away from factory farming and the disease causing practices that are being implemented.[292] This prevention includes giving animals more space to move and play to improve their immune systems by lowering their stress levels. Factory farms should already end the non-therapeutic use of antibiotics and the mishandling of animal waste. Ending the use of factory farms for disease prevention would only be possible if it was accomplished internationally through a treaty. Preferably all the WOAH, UNCAHP, CAP and the WHO proposed treaty would be implemented because they cover different aspects of animal wellbeing, which would result in disease prevention.[293] This change must occur before the mistreatment of animals results in the mass suffering of humanity.

If the world wants to move beyond creating walls memorialising loved ones lost to pandemics, then the stories of animals such as Stanton must first be addressed. Only when the most vulnerable members of our communities, including calves like Stanton, are taken care of will the spread of the next disease be prevented, and all members of our society be safe.

291 C Victor Spain, Are They Buying It? United States Consumers' Changing Attitudes toward More Humanely Raised Meat, Eggs, and Dairy, Animals (Basel) (July 25, 2018), https://pmc.ncbi.nlm.nih.gov/articles/PMC6116027/.

292 Jay P Graham, et. Al., The Animal-Human Interface and Infectious Disease in Industrial Food Animal Production: Rethinking Biosecurity and Biocontainment, Public Health Rep (2008), https://pmc.ncbi.nlm.nih.gov/articles/PMC2289982.

293 CAP, supra note 28. See also: WHO, supra note 28.

The USDA's Failure to Enforce the AWA

By Gabriella Miller

Introduction

Humans rely on animals for everything from companionship to testing whether life-saving drugs and innovative technology are safe for human use. Despite this, animals are often treated poorly in return—especially in laboratories. The Animal Welfare Act (AWA) has been instrumental in providing protections to certain categories of animals who are used in laboratory settings, mandating that these animals be given humane treatment and that their suffering is minimised.[1] While the AWA seeks to minimise the harm caused to animals, the United States Department of Agriculture (USDA) does not do enough to enforce the rules that it has set. There has been a recent decline in the USDA's already insufficient enforcement against research facilities that has troubling implications for the future of animals used for experimentation.[2]

Animal testing, which is controlled by the USDA, is not regulated enough. The definition of "animal" under the AWA does not cover every species that is used for animal testing, leaving many animals to suffer despite the AWA's facial intent to minimise their pain and suffering.[3] Animals like birds, rats, and mice are some examples of animals that are not protected by the AWA. Animals that are covered are subjected to extremely minimal protections when it comes to experimentation.[4] This is problematic because there is a gap where researchers can exploit the use of specific animals. Experiments like those conducted by Neuralink expose the shortcomings of the USDA, as the USDA did not enforce restrictions upon Neuralink when their rushed and repetitive experiments caused pain and suffering to many animals, killed more animals than necessary, and showed a general lack of attentiveness when planning and carrying out their experiments.[5]

The USDA should increase its enforcement of the AWA to ensure the humane treatment of animals in research settings. Further, it should fill in the gaps where the AWA allows for insufficient enforcement and protections. Part II of this paper examines how the USDA neglects to enforce the AWA as it pertains to animal testing. Part III discusses specific instances of these failings. Part IV outlines the shortcomings of the AWA, both facially and in its enforcement. Part V uses the Neuralink experiments to showcase the problems with AWA enforcement in an ongoing experiment. Part VI discusses how the USDA can improve its enforcement of the AWA.

The USDA Neglects to Enforce the AWA in Animal Testing

The AWA protects animals used in research facilities.[6] It enforces humane treatment of animals by ensuring that animals are not unnecessarily subjected to multiple major experiments and that animals are provided with a high standard of care.[7] Section 2143 discusses the promotion of "psychological well-being of primates" and experiments ensuring that "animal pain and distress are minimized."[8] Research facilities should be regularly in-

1 7 U.S.C.A. § 2131, 2143, 2144 (2023).
2 Cathy Liss, 'Why Won't USDA Enforce the Animal Welfare Act?' (The Hill, 21 September 2019), <https://thehill.com/opinion/energy-environment/462348-why-wont-usda-enforce-the-animal-welfare-act/> accessed 14 August 2024.
3 7 U.S.C.A. § 2132(g) (2023).
4 Ibid.
5 See Rachael Levy & Marisa Taylor, 'Insight: At Musk's Brain-Chip Startup, Animal-Testing Panel Is Rife with Potential Conflicts' (Reuters, 9 May 2023), <https://www.reuters.com/technology/musks-brain-chip-startup-animal-testing-panel-is-rife-with-potential-conflicts-2023-05-04/> accessed 14 August 2024.
6 7 U.S.C.A. §§ 2131, 2143, 2144 (2023).
7 Ibid.
8 7 U.S.C.A. § 2143(2)(B)–(3)(A) (2023).

spected so that the Secretary of Agriculture can enforce the AWA, ensuring that research facilities do not cause unnecessary pain or suffering to animals and that animals receive humane treatment.[9]

The USDA enforces the AWA through unannounced inspections.[10] If the inspector is unsatisfied with the conditions of the facility, that facility is given time to fix the problems before a later, follow-up inspection.[11] Some violators are permitted to pay a penalty instead of going through "formal administrative proceedings," and more serious and continued violations can lead to "license suspensions, revocations," and more.[12] The USDA purports to distinguish high-priority cases based on the severity of animal suffering, the facility's past compliance, public or animal safety or health concerns, and more.[13]

Overview of AWA Standards for Protecting Laboratory Animals

The Secretary has leeway when it comes to enforcement of the AWA. Section 2143 states that "[t]he Secretary shall promulgate standards to govern the humane handling, care, treatment, and transportation of animals by dealers, research facilities, and exhibitors."[14] Further, § 2416 states that the Secretary shall "inspect each research facility at least once each year and . . . shall conduct such follow-up inspections as may be necessary."[15] This Act was created to provide animals with reasonable protections. It is the USDA's responsibility to enforce these standards and to ensure that the animals covered by the AWA are provided with humane treatment.

The USDA promulgates regulatory standards set by the AWA. The AWA requires the minimisation of "discomfort, distress, and pain to the animals" during research procedures and that researchers "consider alternatives" to these procedures.[16] Additionally, the USDA stipulates that, in compliance with the AWA, animals' living conditions should be appropriate for their species.[17] All research staff should be qualified and properly trained.[18] All research facilities are required to provide adequate veterinary care and to maintain sufficient institutional animal care and use committee (IACUC) records.[19] These provisions are often violated by the USDA failing to enforce these animal welfare provisions.

Lack of USDA Enforcement

The AWA gives the Secretary authority to inspect research facilities and to address any deficiencies in the facilities' care of their animals and necessity of their experiments.[20] However, the USDA does not effectively enforce the AWA. Recently, the USDA has made "courtesy" and "compliance" visits to facilities rather than completing full inspections, and "[i]nspectors are reportedly discouraged from citing non-compliances, and licensees and registrants are given ample opportunity to challenge any noncompliant items that are documented during inspections and make them disappear."[21] In 2016, the USDA issued almost 5000 citations out of 8869 reports, and in 2018, that number dropped to 1800 citations out of a similar number of reports.[22] This shows that the USDA is neglecting to enforce the AWA, impacting the welfare of the animals who are supposed to benefit from the AWA's provisions. "More often than not, rather than handing out fines, the USDA doesn't issue any," even when there is "extreme cruelty or neglect."[23]

9 7 U.S.C.A. § 2146 (2023).
10 'Animal Welfare Act Enforcement' (U.S. Department of Agriculture, 13 August 2024), <https://www.aphis.usda.gov/aphis/ourfocus/animalwelfare/ct_awa_enforcements> accessed 14 August 2024.
11 Ibid.
12 Ibid.
13 Ibid.
14 7 U.S.C.A. § 2143(a)(1).
15 7 U.S.C.A. § 2146(a) (2023).
16 U.S. Department of Agriculture, Animal Welfare Act and Animal Welfare Regulations (2023) (citing 9 C.F.R. § 2.31 (2023)).
17 Ibid [68].
18 Ibid [71] (citing 9 C.F.R. § 2.32 (2023)).
19 Ibid [72, 74] (citing 9 C.F.R. § 2.33, 2.35 (2023)).
20 Ibid.
21 'Administration Persists with Deconstruction of Animal Welfare Act' (Animal Welfare Institute, 2019) <https://awionline.org/awi-quarterly/summer-2019/administration-persists-deconstruction-animal-welfare-act> accessed 14 August 2024.
22 Liss (n 2).
23 Rachel Fobar, 'Toothless and 'Paltry': Critics Slam USDA's Fines for Animal Welfare Protection' (National Geographic, 12 December 2022) <https://www.nationalgeographic.com/animals/article/toothless-and-paltry-critics-slam-usda-fines-for-animal-welfare-violations> accessed 14 August 2024.

The USDA's established pattern of administering low fines gives laboratories—which are often wealthy due to grants and other funding[24]—little incentive to follow AWA guidelines. Even when the USDA does attempt to enforce the AWA, it does not do enough to deter facilities from continued violations. The USDA can fine laboratories that fail to meet AWA standards.[25] However, these fines are often so low that they are not viewed as punitive but merely as "a cost of doing business."[26] For example, Colorado State University's poor care of the bats they used in research resulted in a $5,800 fine—less than 2% of the $306,504 fine that they could have been required to pay based on their numerous AWA violations.[27] This is such a common practice that researchers acknowledge that "[t]he USDA 'coddles research'" and that fines leveled against large research facilities are the same as those brought against smaller animal operations, thus rendering "penalties for larger facilities 'negligible.'"[28] This is particularly egregious because the AWA specifically provides that the size of the business can be considered when determining the penalty amount.[29]

There are many examples of the AWA failing to impose sufficient fines, which, in general, are ineffective in dissuading further violations.[30] Biomedical Research Institute had three AWA violations due to the deaths of two macaques.[31] Despite the blatant neglect of these animals, who were found dead with almost no body fat and high levels of dehydration, the facility was only fined $6,200 out of a maximum of $293,733. A Labcorp laboratory was fined $3,375 out of a maximum of $38,313 for failing to properly handle their animals and equipment.[32] In 2014, the Office of Inspector General (OIG) condemned the AWA's penalty discounting, stating that "IES issued penalties that were reduced by an average of 86 percent from Animal Welfare Act's (AWA) authorised maximum penalty per violation" and that "some [IACUCs] . . . are not always adequately monitoring experimental procedures on animals."[33] These issues result in "reduced assurance that protocols are properly completed, approved, and adhered to and that animals are always receiving basic humane care and treatment."[34]

Discussion of Instances of USDA Failing to Enforce the AWA

The purpose of USDA inspectors visiting animal research facilities is to protect these animals by enforcing the standards of care outlined in the AWA, which includes looking at records and facilities to ensure that no AWA violations are present.[35] Due to recent changes to USDA standards of inspection, the agency now requires only "partial 'focused' inspections for labs accredited by a private organisation of veterans and scientists called AAALAC [the Association for the Assessment and Accreditation of Laboratory Care] International."[36] Focused inspections have relaxed animal welfare standards, which means that in-depth inspections are not taking place and the USDA is giving its responsibilities to a third party.

Issues with USDA enforcement are not a recent development. Animal Legal Defense Fund v. Glickman, which was argued in 1999 and decided in 2000, brought up concerns with regulations regarding the psychological well-being requirement for primates in laboratories.[37] The Secretary set these standards for primates, which plaintiffs found insufficient because their vagueness left much interpre-

24 Ibid (discussing Colorado State University's $6.7 million research grant).
25 7 U.S.C.A. § 2149(b), (d) (2023).
26 Gil H. Harden, U.S. Department of Agriculture, Animal and Plant Health Inspection Service Oversight of Research Facilities (Audit Report 33601-0001-41 3, 2014) <https://usdaoig.oversight.gov/sites/default/files/reports/2022-09/33601-0001-41.pdf>.
27 Fobar (n 23).
28 Ibid.
29 7 U.S.C.A. § 2149(b) (2023).
30 Delcianna J. Winders, 'Administrative Law Enforcement, Warnings, and Transparency' (2018) 79 Ohio St. L. J. 451, 454.
31 Fobar (n 23).
32 Ibid.
33 Office of Inspector Gen., USDA, Animal and Plant Health Inspection Service Oversight of Research Facilities 2 (Audit Report No. 33601-0001-41, 2014).
34 Ibid.
35 7 U.S.C.A. § 2140, 2146(a) (2023).
36 David Grimm, 'USDA Now Only Partially Inspects Some Lab Animal Facilities, Internal Documents Reveal' (ScienceInsider, 5 May 2021) <https://www.science.org/content/article/usda-now-only-partially-inspects-some-lab-animal-facilities-internal-documents-reveal> accessed 14 August 2024.
37 [2000] D.C. Cir., [2000] 204 F.3d 229. The court ultimately ruled that the regulations were valid despite not explicitly accounting for primates' psychological well-being.

tation to the research facilities.[38] Initially, the USDA proposed that nonhuman primates be placed in social housing because social deprivation would have detrimental psychological effects on primates, who are social animals.[39] However, the USDA's regulation ultimately did not require social housing for primates, a confusing change after their recognition that the lack of such housing would be psychologically damaging. This issue still persists because the USDA's guidelines did not adhere to the needs of different species of primates and were too vague to be beneficial for the primates it sought to protect.

Another example of the USDA's failures is the Moulton Chinchilla Ranch (MCR), where chinchillas who were being bred for research were not properly cared for and suffered terrible neglect.[40] Despite the poor treatment of these animals, in 2021, MCR was "the only USDA-licensed supplier of chinchillas for research."[41] The USDA did issue a complaint against MCR, which detailed "85 animals that failed to receive veterinary care" and "an excrement-ridden, understaffed barn housing lethargic animals with weeping, open wounds; putrid abscesses; and...infected eyes swollen or crusted closed."[42] Despite these prevalent and continuing issues, the USDA delayed sanctions against MCR, blaming the pandemic for their lack of action on behalf of these animals.[43] In 2021, MCR's director, Daniel Moulton, finally had his license revoked, but was fined only $18,000 and was allowed to keep 700 chinchillas.[44]

The USDA has shown a decline in enforcement of the AWA, as reported by the Animal Welfare Institute.[45] From 2015 to 2020, there has been a decrease in AWA inspections resulting in citations: a drop from 70% to less than 20%.[46] This shows the discrepancy between AWA enforcement in 2015 and 2020, a change that likely goes back to the "focused" inspections that do not require as in-depth inspections as before.[47] If the USDA does not enforce the humane standards set by the AWA, animals will be left to suffer unnecessarily.

The USDA has failed to protect animals used in biomedical research.

In 2020, the New England Anti-Vivisection Society (NEAVS) filed a lawsuit, New England Anti-Vivisection Soc'y v. Goldentyer, against the USDA because the USDA and the Animal Plant and Health Inspection Service (APHIS) did not increase the psychological wellbeing standards created by the AWA for primates used in biomedical research.[48] NEAVS alleged that they suffered "an added burden of obtaining information about the treatment of nonhuman primates in research facilities due to the lack of informative reports."[49] Goldentyer, the Acting Deputy Administrator for Animal Care at APHIS and Sonny Perdue, the Secretary of the USDA, "refus[ed] to upgrade the standards for the psychological well-being of primates . . . under the Administrative Procedure Act" and did not provide NEAVS with information "regarding the conditions under which primates are being maintained in laboratories."[50] The court ruled in NEAVS's favor, indicating that new and heightened standards

38 Ibid [232].

39 Delcianna J. Winders, 'Treating Humans Worse than Animals? Exposing a False Solitary Confinement Narrative' in Lori Gruen & Justin Marceu (eds), Animal Law in Context: The Limits of Carceral Strategies (Cambridge University Press 2022) (quoting Proposed Rule, 54 Fed. Reg. 10987, 10913 (Mar. 15, 1989)).

40 Nancy Blaney, 'How the USDA Fails to Enforce the Animal Welfare Act' (Independent Media Institute, 25 August 2022) <https://independentmediainstitute.org/2022/08/25/how-the-usda-fails-to-enforce-the-animal-welfare-act/> accessed 14 August 2024.

41 Ibid (citing Dina Fine Maron, 'The U.S.'s Only Research Chinchilla Supplier Has Been Shut Down. Here's Why That Matters' (National Geographic, 8 October 2021) <https://www.nationalgeographic.com/animals/article/usda-has-shut-down-the-nations-only-chinchilla-research-supplier-heres-why-that-matters> accessed 14 August 2024); Meredith Wadman, 'Sick Chinchillas Languish at Farms That Supply U.S. Researchers' (ScienceInsider, 26 May 2020), <https://www.science.org/content/article/sick-chinchillas-languish-farms-supply-us-researchers> accessed 14 August 2024.

42 Meredith Wadman, 'Sick Chinchillas Languish at Farms That Supply U.S. Researchers' (ScienceInsider, 26 May 2020) <https://www.science.org/content/article/sick-chinchillas-languish-farms-supply-us-researchers> accessed 14 August 2024.

43 Ibid.

44 Blaney (n 40).

45 'USDA Urgently Needs Upward Trajectory in Enforcement of Animal Protection Laws' (Animal Welfare Institute, 2021) <https://awionline.org/awi-quarterly/spring-2021/usda-urgently-needs-upward-trajectory-enforcement-animal-protection-laws> accessed 14 August 2024.

46 Ibid.

47 Grimm (n 36).

48 [2021] D. Md. GJH-20-2004, [2021] WL 4459217.

49 Ibid.

50 Ibid.

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apply to the care of primates in laboratories.[51] The USDA would be required to document the non-compliance and make that information public.[52] However, the USDA still must go through a rulemaking process to promulgate these standards, so further work is necessary to enforce these well-being standards for primates.

Primates are not the only animals subject to mistreatment in bioresearch facilities. Many different types of animals are subjected to pain for the sake of research and are often housed in facilities that do not provide them with sufficient space.[53] After being used in multiple experiments, animals that do not die as a result of these experiments are often killed so their organs can be used for further studies.[54]

A recent inspection at Dartmouth College found that three voles were left in a dirty cage without food and water.[55] The employee responsible was terminated, but the only other method of recourse was retraining of the other employees.[56] Another example occurred at the University of California-Riverside, where poor communication led to the deaths of eleven voles.[57] The report states that "corrective action" was taken to prevent recurrence of the issue, but does not describe what exact measures were taken.[58] These recent examples prove that the USDA continues to neglect its responsibilities to research animals. Although the USDA did enforce punishments for these violations, the lack of clarity in their public reports and the lack of substantial consequences for these violations indicate that deterrence for future infractions is unlikely and that the USDA is not doing enough to pre-

51 Ibid.
52 Ibid.
53 Larry Carbone, 'Pain in Laboratory Animals: The Ethical and Regulatory Imperatives' (2011) 6(9) PLoS One; John Copps, 'Issues Related to the Use of Animals in Biocontainment Research Facilities' (2005) 46(1) ILAR J. 34.
54 Committee on the Use of Laboratory Animals in Biomedical and Behavioral Research, Commission on Life Sciences, National Research Council, & Institute of Medicine, 'Use of Laboratory Animals in Biomedical and Behavioral Research' (1988) 19(7) National Academies Press.
55 U.S. Department of Agriculture Animal and Plant Inspection Service, Inspection Report: Trustees of Dartmouth College (INS-0000804861, 2022).
56 Ibid.
57 U.S. Department of Agriculture Animal and Plant Inspection Service, Inspection Report: University of California-Riverside (INS-0000885588, 2023).
58 Ibid.

vent similar issues from occurring again.

The USDA does not impose sufficient punishments upon those who mistreat animals used for research. The lack of care that researchers show towards these animals emphasizes how important it is for the USDA to uphold the AWA's standards to protect these animals.

Animal Testing Is Not Regulated Enough

This part discusses the lack of regulation of animal testing. Because the AWA's definition of "animal" is insufficient, many animals are left without protection as the UDSA is not required to regulate their treatment within laboratories. According to the AWA, animals are defined as "any live or dead dog, cat, monkey (nonhuman primate animal), guinea pig, hamster, rabbit, or such other warm-blooded animal…being used, or is intended for use, for research, teaching, testing, experimentation, or exhibition purposes, or as a pet."[59] This definition goes on to explicitly exclude birds, rats, mice, and farm animals and impliedly exclude cold-blooded animals like fish, frogs, octopuses, and turtles.[60]

Animal testing is not regulated enough, even when AWA standards are perfectly met. Some AWA standards are overseen by a laboratory veterinarian who may exhibit a biased or easily swayed view of what is an appropriate standard of care for animals; for example, when they have financial stakes in the company.[61] For housing dogs, providing primates with psychological well-being, and providing both of these species with physical enrichment, research facilities often find loopholes to meet these standards at the barest minimum possible, such as providing no variation between environmental factors meant to effect physical enrichment.[62]

A prevalent shortcoming of the AWA is that the Secretary can only enforce regulations when they do not interfere with experiments, subject to limited exceptions.[63] The AWA provides that the Secretary cannot "promulgate rules, regulations, or orders with regard to the performance of actual research or experimentation by a research facility as determined by such research facility" or "interrupt the conduct of actual research or experimentation."[64] Although the AWA permits the Secretary to oversee research facilities, the Secretary cannot interfere in a meaningful way. Further, the vagueness of the AWA does not allow for a standardized level of care sufficient for the well-being of animals in researchers' care. Much change is necessary for the AWA to adequately protect animals in research facilities to minimize their unnecessary pain, suffering, and general unhappiness.

The USDA Only Partially Inspects Some Laboratories

As discussed in Parts III and IV, the USDA now only partially inspects animal facilities.[65] This change was only revealed after a public records request from Harvard, and the documents suggested that mainly labs that were accredited by AAALAC, a private company, were being given less stringent inspections.[66] This means that laboratory facilities are not being held to equal standards, and that some are allowed to bypass certain requirements based on accreditation that does not come directly from the USDA. It also continues a pattern of disingenuous behaviour from the USDA, furthering their tendency to hide information related to animal welfare.[67]

In a recent lawsuit, Rise for Animals. v. Vilsack, Rise for Animals argued that the USDA relied on AAALAC to "evade its statutory obligation to conduct full annual inspections of research

59 7 U.S.C.A. § 2132(g) (2023).
60 Ibid.
61 Pamela D. Frash, 'Gaps in US Welfare Law for Laboratory Animals: Perspectives from an Animal Law Attorney' (2016) 57 ILAR J. 285, 289; Rachael Levy & Marisa Taylor, 'Insight: At Musk's Brain-Chip Startup, Animal-Testing Panel Is Rife with Potential Conflicts' (Reuters, 9 May 2023), <https://www.reuters.com/technology/musks-brain-chip-startup-animal-testing-panel-is-rife-with-potential-conflicts-2023-05-04/> accessed 14 August 2024.
62 Ibid.
63 7 U.S.C.A. § 2143(a)(6)(A)(i)-(iii) (2023).
64 7 U.S.C.A. § 2143(a)(6)(A)(ii)-(iii) (2023).
65 Catherine Offord, 'USDA Only Carries Out Partial Inspections of Some Animal Labs' (TheScientist, 5 May 2021) <https://www.the-scientist.com/news-opinion/usda-only-carries-out-partial-inspections-of-some-animal-labs-68738> accessed 14 August 2024.
66 Ibid.
67 Ibid (citing Jef Akst, 'Animal Welfare Records Return to USDA Website' (TheScientist, 20 February 2020), <https://www.the-scientist.com/news-opinion/animal-welfare-records-return-to-usda-website-67139> accessed 14 August 2024.

facilities as required under the [AWA]."[68] This violates the AWA because the USDA should not delegate its responsibilities to a group that is not affiliated with the government.[69] The USDA's partial inspections damage the organization's authority over the AWA and call into question its ability to enforce this act. By giving AAALAC inspection power, the USDA does not acquire that inspection information for itself and does not make that information available to the public, thus limiting the ability of organizations like Rise for Animals to monitor the USDA's actions in the interest of the animals they oversee.[70] The USDA should perform full inspections on its own rather than giving that responsibility to others because they need to enforce strict standards backed by governmental authority.

How the Neuralink Experiment Exposes the USDA's Shortcomings

Elon Musk's Neuralink is a medical device company that is creating a brain implant to cure people who are suffering from neurological ailments.[71] Musk has hastened development of this device, which has unfortunate consequences for the animals upon whom he has tested this device.[72] These rushed experiments led to "botched experiments," such as the careless use of incorrect equipment, which killed many animals and meant that more were used to replace them.[73] Further, Neuralink is involved in conflicts of interest involving IACUCs.[74] Some IACUCs are closely involved with Neuralink and have financial stakes in the company—and the USDA claims not to have found any conflicts of interest.[75] This exposes the fact that the USDA does not enforce AWA standards, even when animals are blatantly being used in rushed, careless experiments.

68 Compl. for Declaratory Relief and Vacatur 1 [2022] D. Md. [2022] No. 8:22-cv-00810-TJS.
69 Ibid [2].
70 Ibid [6].
71 Rachael Levy, 'Exclusive: Musk's Neuralink Faces Federal Probe, Employee Backlash Over Animal Tests' (Reuters, 6 December 2022) <https://www.reuters.com/technology/musks-neuralink-faces-federal-probe-employee-backlash-over-animal-tests-2022-12-05/> accessed 14 August 2024.
72 Ibid.
73 Ibid.
74 Levy & Taylor (n 5).
75 Ibid.

This part discusses Elon Musk's Neuralink experiment and how it exemplifies the USDA's failures to enforce the AWA. The particular factors that will be discussed include conflict-of-interest issues, carelessness in experiments, and FDA concerns.

Conflict-of-Interest Issues

The conflict-of-interest issues within the Neuralink experiment impact research integrity. Originally, Neuralink partnered with the University of California, Davis (UC Davis) to "help conduct and oversee its animal tests."[76] Partnerships with universities avoid conflict-of-interest issues, as universities "prohibit people with direct financial interests from serving on IACUCs or voting on animal experiments."[77] Neuralink ended their partnership with UC Davis because the university's processes were "too slow and bureaucratic."[78] Neuralink effectively broke ties with the institution that prevented them from engaging in conflicts of interest.

At Neuralink, employees have direct financial stakes in experiment outcomes.[79] When employees have stakes in the experiments that they facilitate, it gives them an incentive to ensure that these experiments are successful no matter what. According to Neuralink staffers, "some senior-level employees stand to make millions of dollars if the company secures critical regulatory approvals."[80] Securing this approval is impossible unless animal trials are successful and lead to a viable commercial product.[81] Employees with financial stake in Neuralink are incentivized to carry out hasty experiments in order to push out a viable product faster.

The USDA rarely enforces conflict-of-interest issues. In the last decade, they have only enforced eight citations out of 11,000 inspections.[82] Those that oversee experiments must be independent, as this is "critical to protecting the integrity of animal research that could im-

76 Levy & Taylor (n 5).
77 Ibid.
78 Ibid.
79 Ibid.
80 Ibid.
81 Ibid.
82 Ibid.

pact humans in future clinical trials."[83] Financial conflicts in research can severely impact the integrity of experiments, as it prompts researchers to promote financial gain over proper experiments. Many research departments at universities have strict policies regarding conflicts of interest. The American Psychological Association specifically states that violations of their conflict-of-interest policies could result in complete suspension of research activities.[84] The University of Iowa points out that "an individual's professional actions or decisions . . . could be influenced by considerations of personal gain," which could compromise professional judgment within the realm of research.[85] Musk has also used this financial incentive as a method to speed up animal testing by threatening to "trigger a 'market failure' at Neuralink unless they made more progress, a comment perceived by some employees as a threat to shut down operations."[86]
Carelessness Issues

Neuralink has killed over 1500 animals since its experiments began in 2018.[87] In contrast, Synchron, a rival of Neuralink's that "is developing a different implant with less ambitious goals for medical advances," comparatively killed 80 sheep throughout its research.[88] Carelessness in animal experimentation is not exclusive to Neuralink: "thousands of animals are spent on scientific experiments, [but] the majority of these studies are not published."[89] These studies view animals as tools for scientific advancement, ignoring the fact that they "feel pain and enjoy life as humans [do]."[90] The careless use of animal lives in research displays a concerning lack of empathy and understanding of the true depth and value of these animals' lives.

Repeat Experiments Increase Animal Deaths

Musk pushing for faster experiments led to increased animal deaths.[91] Former Neuralink employees have reportedly stated that they "had advocated for a more traditional testing approach, in which researchers would test one element at a time in an animal study and draw relevant conclusions before moving on to more animal tests."[92] Specifically, four experiments involving eighty-six pigs and two monkeys were botched due to human error resulting from rushed conditions.[93] These failed experiments had to be repeated, which meant sacrificing more animals to obtain the necessary results.[94] Staff members stated that "Neuralink launches tests in quick succession before fixing issues in earlier tests or drawing complete conclusions," so mistakes are unnecessarily repeated and more animals are killed as a result.[95] Musk even encouraged employees to "imagine they had a bomb strapped to their heads in an effort to get them to move faster."[96]

Potential Animal-Welfare Violations

At Neuralink, animal welfare issues are a concern as well. Six monkeys died due to health issues that resulted when the wrong surgical glue was used on them.[97] This glue, known as BioGlue, "had never been approved for use in the experiment,"[98] which was a direct violation of the AWA. However, instead of citing the violation, USDA effectively concealed it.[99]

83 Ibid.
84 'Financial Conflict of Interest Policy' (American Psychological Association, 2021) <https://www.apa.org/about/financial-conflict-of-interest> accessed 14 August 2024.
85 'Conflict of Interest in Research' (University of Iowa, 2023) <https://coi.research.uiowa.edu/about> accessed 14 August 2024.
86 Rachel Levy, 'Musk's Neuralink Faces Federal Inquiry After Killing 1,500 Animals in Testing' (The Guardian, 5 December 2022) < https://www.theguardian.com/technology/2022/dec/05/neuralink-animal-testing-elon-musk-investigation> accessed 5 December 2024.
87 Levy (n 71).
88 Rachel Levy, 'Musk's Neuralink Faces Federal Inquiry After Killing 1,500 Animals in Testing' (The Guardian, 5 December 2022) < https://www.theguardian.com/technology/2022/dec/05/neuralink-animal-testing-elon-musk-investigation> accessed 5 December 2024.
89 Elif Akkaya & Harun Resit Gungor, 'The Dark Side of the Animal Experiments' (2022) 33 Jt. Dis. Relat. Surg. 479.
90 Ibid.
91 Levy (n 71).
92 Ibid.
93 Ibid.
94 Ibid.
95 Ibid.
96 Rachel Levy, 'Musk's Neuralink Faces Federal Inquiry After Killing 1,500 Animals in Testing' (The Guardian, 5 December 2022) < https://www.theguardian.com/technology/2022/dec/05/neuralink-animal-testing-elon-musk-investigation> accessed 5 December 2024.
97 Levy (n 71).
98 'Elon Musk Company Neuralink Given Free Pass for Animal Welfare Act Violations, USDA Reveals in Letter to Congress' (Physicians Committee for Responsible Medicine, 19 July 2023) <https://www.pcrm.org/news/news-releases/elon-musk-company-neuralink-given-free-pass-animal-welfare-act-violations-usda> accessed 5 December 2024.
99 Ibid.

The monkeys subjected to the erroneous use of BioGlue experienced an intense level of suffering.[100] For example, a rhesus macaque called "Animal 21" reportedly "lost coordination and balance, experienced paralysis in both legs, and was suffering from depression."[101] An autopsy revealed that BioGlue covered "a large area of [her] left cerebrum," "blood had built up on the surface of her brain," and there were ulcers in her oesophagus and blood in her stomach.[102]

Twenty-five out of sixty pigs died when the wrong-sized devices were implanted into their heads.[103] Pigs were also subjected to anaesthesia for long periods of time, "risking their health and recovery."[104] Further, staff "accidentally implanted Neuralink's device on the wrong vertebra of two different pigs during two separate surgeries," a mistake that "could have easily been avoided by carefully counting the vertebrae before inserting the device."[105] Due to one of the pig's "low chance of full recovery…and current poor physical wellbeing," Neuralink's veterinarian decided to euthanise her "to end her suffering."[106] These are careless issues that could have been prevented, had the AWA enforced stricter guidelines as to how to handle this type of experimentation. These examples also highlight the unnecessary suffering that animals endure when they are subjected to companies like Neuralink.

Neuralink claims to utilize animal testing "only when it has exhausted other research options."[107] However, the company's records "contained numerous references over several years to exploratory surgeries, and three people with knowledge of the company's research strongly rejected the assertion that Neuralink avoids exploratory tests on animals."[108] While Musk claims to only use confirmatory testing and not exploratory testing, "documents and company messages suggest otherwise." The head of Neuralink's animal care department also ordered employees to remove the word "exploration" from their study titles retroactively "and stop using it in the future."[109] Clearly, Neuralink is aware of their unlawful maltreatment of animals, but rather than rectify these issues, the company seeks to conceal them. At Neuralink, the welfare of the animals used for experimentation is not being considered and their lives are not being given appropriate value; rather, their welfare is completely pushed to the side in order to promote careless research.

FDA Concerns

The Food and Drug Administration (FDA) which provides guidelines regarding how animal experiments should be facilitated and indicates that researchers should consider alternative methods,[110] is in charge of approving Neuralink's applications for medical device trials.[111] Their application for human trials was initially rejected (though subsequently approved), with the FDA citing concerns about the safety of the devices, the likelihood that the implant's wires could move to other parts of the user's brain, and whether the device could be removed post-implantation without damaging brain tissue.[112] There is little information about the dealings between the FDA and Neuralink, as neither discussed it and the FDA refused to comment.[113]

While the FDA's desire for improvements in Neuralink's medical devices might seem heartening in terms of animal welfare, it actually speaks more to the failings of Neuralink. The FDA "has approved about two-thirds of all human-trial applications for devices on the first attempt over the past three years."[114] Additionally, the FDA "upholds high standards in vetting all brain implants even as it aims to speed reviews."[115] The FDA's initial denial of

100 Ibid.
101 Ibid.
102 Ibid.
103 Levy (n. 71).
104 Ibid.
105 Rachel Levy, 'Musk's Neuralink Faces Federal Inquiry After Killing 1,500 Animals in Testing' (The Guardian, 5 December 2022) < https://www.theguardian.com/technology/2022/dec/05/neuralink-animal-testing-elon-musk-investigation> accessed 5 December 2024.
106 Ibid.
107 Ibid.
108 Ibid.
109 Ibid.
110 U.S. Food and Drug Administration, Guidance Document: General Considerations for Animal Studies Intended to Evaluate Medical Devices: Guidance for Industry and Food and Drug Administration Staff (FDA-2015-D-3419, 2023).
111 Levy & Taylor (n 5).
112 Ibid.
113 Ibid.
114 Ibid.
115 Ibid.

Neuralink's human trials is more indicative of Neuralink's rushed and unsafe research methods rather than the agency's interest in upholding standards of welfare for its testing subjects.

The FDA urges researchers to consult with a laboratory veterinarian to determine what animals are suitable for research and to help researchers understand how to handle these animals.[116] Research personnel should be experienced and have the proper credentials to carry out these studies.[117] The FDA's guidelines also discuss the use of anaesthetics and analgesics, since these tools can cause pain and distress.[118] While this is framed to prioritize the efficacy of the experiment, it at least shows that minimal effort is being taken to minimize animals' pain and suffering.

The FDA also outlines specifications similar to those found in the AWA, stating that animals should have adequate housing and that social animals should be grouped together.[119] The FDA states that animals should have access to "food and water receptacles, species-appropriate resting surfaces, and species-specific enrichment devices."[120] Further, the "FDA notes that adequate play and exercise are increasingly recognized as important to animal well-being."[121]

These guidelines are merely "considerations" and, because they are part of a guidance document, they are not legally enforceable. They are helpful for protecting laboratory animals and provide an outline of what level of care should be expected from a laboratory setting, but unfortunately, they cannot protect animals as thoroughly as if they were compulsory. These guidelines should be made compulsory in order to benefit animals used for experimentation, as they encourage consultations with veterinarians to ensure the proper handling of animals and emphasize animals' access to certain necessities. By enforcing these guidelines in an official capacity, animal welfare could improve.

116 Ibid [5].
117 Ibid.
118 Ibid [9].
119 Ibid [14].
120 Ibid.
121 Ibid.

How the USDA Can Better Enforce the AWA

There are many opportunities for the USDA to improve its enforcement of the AWA. The USDA does not fully inspect laboratories that are accredited by the AAALAC, although this organization is not federally regulated.[122] The USDA is a governmental agency that has the authority to inspect animal research facilities, and should be the party that conducts full inspections of each lab. The USDA's "focused inspections" include looking at only a few aspects of the labs, rather than an extensive inspection.[123] This is likely an AWA violation because there is no guarantee that the facilities that the USDA is not fully inspecting are following the AWA guidelines for minimum welfare standards.[124]

The USDA removed many of its animal inspection records from its online database in 2017 due to "privacy concerns."[125] Fewer violations as compared to previous years were noted once this data was available, raising concerns about the quality of these inspections and speculations as to why the records were hidden.[126] Although these records are now available for anyone to search online, thanks to 7 U.S.C.A. § 2146a, the information provided there gives only a vague overview of the violations.[127] These reports should provide greater detail as to what violations were found, how facilities were inspected, and what repercussions were issued. In doing so, those involved in animal welfare litigation or those reporting on animal welfare violations would have more information to support their advocacy. Further, companies who mistreat animals should face the consequences of having such information public.

As mentioned above, the USDA imposes low

122 AAALAC, 'Accreditation Program' (AAALAC International) <https://www.aaalac.org/accreditation-program/policies/#:~:text=No%2C%20AAALAC%20is%20not%20a,and%20does%20not%20make%20regulations> accessed 14 August 2024.
123 Offord (n 69).
124 Ibid.
125 H. Claire Brown, 'After Three Years, USDA Releases Previously Hidden Animal Cruelty Records' (The Counter, 19 February 2020) <https://thecounter.org/usda-aphis-hidden-animal-cruelty-inspection-records/> accessed 14 August 2024.
126 Ibid.
127 7 U.S.C.A. § 2146(a) (2023).

fines for egregious AWA violations that result in animal deaths after long-term suffering.[128] Because these fines are not high enough for research facilities to consider them punitive, the USDA should enforce much higher fines against facilities that violate the AWA. By doing so, research facilities will see clearer consequences for their violations and will be motivated to follow AWA guidelines more strictly to avoid high fines in the future.

Finally, animal welfare should be enforced more strictly. More animals should be included in the AWA's definition of "animal," and every species should be given adequate space, exercise, and social opportunities. The Secretary should raise its minimum standards for animal care.[129] While it is important that dogs and primates have species-specific provisions,[130] all animals should be afforded the same level of care. The Secretary should be able to prevent research that causes excessive cruelty or physical and psychological detriment to animals.[131] The USDA has not enforced many animal welfare citations recently because inspectors are discouraged from doing so.[132] Congress should amend the AWA to make stricter minimum guidelines for animal welfare, such as ensuring that animals have adequate food, water, and space; and the USDA should more strictly enforce these guidelines.

Conclusion

The use of animals in laboratory testing results in the pain and suffering of many animals throughout their lives. The inhumane treatment of these animals can be rectified if the AWA created stricter guidelines that the USDA actually enforced. Enforcement is a critical aspect of animal welfare that the USDA has neglected. Stricter enforcement of AWA guidelines by the USDA through actual enforcement of AWA regulations, larger fines and less leeway for violations, and stricter inspections that occur at regular intervals will result in improved animal welfare in laboratories.

128 Fobar (n 23).
129 7 U.S.C.A. § 2143(a)(2)(A) (2023).
130 7 U.S.C.A. § 2143(a)(2)(B).
131 7 U.S.C.A. § 2143(a)(4)(6)(A).
132 Rachel Fobar, 'USDA Accused of Ignoring Animal Welfare Violations in Favor of Business Interests' (National Geographic, 13 October 2021), < https://www.nationalgeographic.com/animals/article/usda-accused-of-ignoring-animal-welfare-for-business-interests> accessed 14 August 2024.

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