

COVID-19 and Wildlife Farming in China: Legislating to Protect Wild Animal Health and Welfare in the Wake of a Global Pandemic

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ABSTRACT

Coronavirus disease 2019 (COVID-19) has exposed serious deficiencies in the current legal framework to protect wild animal health, and consequently human health. As noted by the World Organisation for Animal Health (OIE), animal health and welfare are inextricably linked. However, there is no international agreement to promote animal welfare and neither the Convention on International Trade in Endangered Species of Wild Fauna and Flora nor the Convention on Biological Diversity, adequately address the welfare of the species they seek to conserve. While the OIE provides guidance on animal health and welfare standards for common agricultural species, it has provided limited guidance for the farming of wild species. China's wildlife farming industry has been linked with the spread of COVID-19 but, to date, China has introduced few national welfare controls to protect the health of wild animals bred for human consumption. In the wake of COVID-19, these omissions must be remedied to provide appropriate safeguards to ensure animal health and welfare and protect public health.

KEYWORDS: COVID-19, wildlife farming, China, animal welfare

The COVID-19 pandemic has taught us that the current legal framework to protect wild animal health, and consequently human health, is not working. This article contends that, in a significant part, this is because there is no international agreement to protect animal welfare. As recognised by the sole international reference organisation for animal health and disease control, the World Organisation for Animal Health (OIE), animal health and welfare are inextricably linked.¹ International law relating to wild animals, however, has focused on the conservation or the health of the animals, and, in a few instances on both, but rarely on their links with animal welfare. This omission must now be rectified.

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1 OIE Resolution No XIV, adopted by the International Committee of the OIE on 29 May 2002. <<https://www.oie.int/about-us/key-texts/basic-texts/new-mandates/>> accessed 19 November 2020.

Both prior to, and in the wake of, the recent pandemic, scholars have argued that the links between zoonotic disease and wildlife conservation require a new coordinated response to wild animal health in international law. Suggestions have been made to amend the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)² mandate to control trade in endangered species to include a requirement to consider animal health,³ to re-tool the Convention on Biological Diversity (CBD)⁴ targets to require zoonosis risks to be recognised and actively prevented⁵ and to include requirements to prevent habitat fragmentation in conservation treaties related to land use.⁶

Each of these suggestions provides a worthy attempt to realign current wildlife protections with appropriate zoosanitary regulation, in the hope of preventing further global disasters of the kind experienced in 2020. However, it will be argued here that such strategies cannot address the root cause of the problem which led to the outbreak of COVID-19 alone. Robust welfare protections for wild animals, whether captive or free-living, must also be prioritised in domestic and international law.

This article focuses on animal health and welfare in China. While the need to ensure the welfare of wild animals is a concern in all parts of the world, it is critical in China where the consumption of wild species has been linked to the spread of COVID-19. COVID-19 is not the first pandemic linked to wildlife trade in China and the momentum to rectify the lack of regulation for wild species use must not be lost again. While in other parts of the world, wildlife consumption predominantly occurs outside of the regulated food system, and is therefore illegal, that is not the case in China. The Chinese government's significant and longstanding support for the wildlife farming industry and legitimisation of the use of even nationally protected wild species for food and medicine has placed public health at risk,⁷ and undermines an already fragile global system of protection for wild species.⁸ The legitimisation (in China) of breeding wild species for consumption also fuels international poaching of wild animals for laundering within legal trade.⁹ Locally poached and internationally smuggled wild animals are targeted by Chinese traders both to replenish captive stock on farms¹⁰ and to provide more expensive (and profitable)

2 993 UNTS 243.

3 Dan E Ashe and John E Scanlon, *A Crucial Step Towards Preventing Wildlife-Related Pandemics* (Scientific American 15 June 2020).

4 1760 UNTS 79.

5 Stuart Harrop, 'Holistic and Leadership: Approaches to International Regulation: Confronting Nature Conservation and Developmental Challenges. A Reply to Farnese' (2014) 3 *Transnational Environmental Law* 311, 317.

6 Patricia L Farnese, 'The Prevention Imperative: International Health and Environmental Governance Responses to Emerging Zoonotic Diseases' (2014) 3 *Transnational Environmental Law* 285, 287.

7 Nian Yang and others, 'Permanently Ban Wildlife Consumption' (2020) 367 *Science* 1434.

8 Li Zhang, Ning Hua and Shan Sun, 'Wildlife Trade, Consumption and Conservation Awareness in Southwest China' (2008) 17 *Biodiversity Conservation* 1493.

9 Laura Tensen, 'Under What Circumstances can Wildlife Farming Benefit Species Conservation?' (2016) 6 *Global Ecology and Conservation* 286.

10 Brant Abbott and Gerrit Cornelis van Kooten, 'Can Domestication of Wildlife lead to Conservation? The Economics of Tiger Farming in China' (2011) 70 *Ecological Economics* 721.

alternatives to those consumers who may believe wild-caught specimens are more potent than captive bred animals.¹¹

This article will focus on the need to introduce both international and domestic welfare protections for captive wild animals to protect both animal and public health. The author recognises that the welfare of free-living wild animals is also important in promoting animal health and minimizing the risks of zoonosis, but space requirements do not permit discussion of these issues. However, the goal of achieving indirect protection of the welfare of free-living wild animals through the protection of species and ecosystems must also be properly addressed¹² through the kinds of conservation law reforms suggested by other scholars (as referred to above).

It is not useful to critique what occurs within China without first considering the goals and limitations of the international protective framework. Section 1 of the article considers the gaps in international law for the protection of wild animals and the links between animal welfare, conservation and health which have been largely overlooked. Section 2 examines wildlife breeding practices in China, including what is being bred, and why, and describes the legislation currently in place to protect the health of wild animals in trade. Section 3 focuses on the need for welfare standards to effectively protect the health of wild animals in China. Section 4 identifies opportunities to secure more effective wild animal protection at the international level through the increased adoption of the 'One Health'¹³ concept, the introduction of a new convention to protect wild animal welfare, and the inclusion of wildlife crime as a protocol under the United Nations Convention against Transnational Organised Crime.¹⁴ Section 5 argues that the recently introduced national prohibition on the consumption of certain terrestrial species in China does not go far enough and should include all high-risk species including those farmed for traditional Chinese medicine (TCM). Section 6 (the concluding part) provides recommendations for the increased welfare protection of wild species in China for the benefit of both animal and human health.

- 11 Adam J Dutton and others, 'A Stated Preference Investigation into the Chinese Demand for Farmed vs. Wild Bear Bile' (2011) *PLoS One* <<https://doi.org/10.1371/journal.pone.0021243>> accessed 19 November 2020; Brian Gratwicke and others 'Attitudes Towards Consumption and Conservation of Tigers in China' (2008) *PLoS One* <<https://doi.org/10.1371/journal.pone.0002544>> accessed 19 November 2020; Shi Haitao and others, 'Farming Endangered Turtles to Extinction in China' (2007) *21 Conservation Biology* 5.
- 12 Rob White, 'Animal Abuse Resulting from Wildlife Habitat Destruction' in Jennifer Maher, Harriet Pierpoint and Piers Beirne (eds), *The Palgrave International Handbook of Animal Abuse Studies* (Palgrave Macmillan, 2017).
- 13 World Organisation for Animal Health, 'Protecting One Health' (OIE 2020) <<https://www.oie.int/en/for-the-media/onehealth/>> accessed 19 November 2020.
- 14 2225 UNTS 209.

1. THE GAP IN WILD ANIMAL PROTECTION IN INTERNATIONAL LAW

1.1 A Failure to Connect the Conservation of Wild Animals with Their Welfare

The primary objectives of the international agreements which control our use of wild animals focus on preserving ecologically valuable species. CITES seeks to achieve this by ensuring that international trade in endangered species is sustainable. The CBD seeks to conserve biodiversity and to ensure the sustainable use of its components. Very little recognition is given in either treaty to the need to protect wild animal welfare.¹⁵

Contrarily, animal welfare laws focus on protecting the health and well-being of animals regardless of their conservation status or value. In failing to differentiate between endangered and flourishing species, animal welfare protections have historically had limited relevance to conservationists.¹⁶ This has resulted in conservation treaties¹⁷ having very little to say about animal welfare.¹⁸ With their strict conservation focus, CITES and the CBD have even gone so far as to ignore the need to provide the same welfare protections to the populations of animals they seek to conserve as are routinely afforded to domestic animals in many countries.¹⁹

This limited focus on conservation has resulted in a significant welfare problem for captive wild animals in trade.²⁰ Grave welfare as well as conservation harms are routinely caused to wild animals as a result of poaching, hunting and even legal trade. While CITES includes some articles requiring parties to minimise the risk of injury, damage to health and cruel treatment of animals in preparation and preservation for live transport,²¹ the Convention offers no detailed provisions mandating animal welfare standards. This is a significant omission, from both a conservation and welfare perspective.

Concerns about the jurisdictional limits of CITES have resulted in the absence of controls on capture methods that could help to minimise the likelihood of animals suffering cruel treatment in capture which may impact their survival rate in transit. Article VIII (3) of CITES obliges parties to ensure that animals 'during any period of transit, holding or shipment, are properly cared for, so as to minimise the risk of injury, damage to health or cruel treatment'. At the CITES meeting in Botswana in 1983, Gambia proposed that authorities should be required to go further and ensure the humane treatment of animals in capture. The proposal was voted down on the

15 Stuart Harrop, 'Climate Change, Conservation and the place for Wild Animal Welfare in International Law' (2011) 23 *Journal of Environmental Law* 441.

16 David Fraser, 'Towards a Synthesis of Conservation and Animal Welfare Science' (2010) 19 *Animal Welfare* 121.

17 The term 'conservation treaties' refers to international agreements seeking to conserve endangered species or biodiversity through efforts to promote sustainable management or use.

18 Stuart Harrop, 'The Dynamics of Wild Animal Welfare Law' (1997) 9 *Journal of Environmental Law* 287.

19 Werner Scholtz, 'Injecting Compassion into International Wildlife Law: From Conservation to Protection?' (2017) 6 *Transnational Environmental Law* 463, 468.

20 Sandra E Baker and others, 'Rough Trade: Animal Welfare in the Global Wildlife Trade' (2013) 63 *Bioscience* 928.

21 CITES (n 2) art III (2) (c); III (4)(b); IV (2)(c); IV (5)(b); IV (6) (b); V (2) (b); VII (7) (c) and VIII (3).

basis that the Convention text did not include the power to require a management authority to ensure humane treatment had occurred between the capture and preparation for export of an animal.²² Even in transport, where CITES clearly has the jurisdiction to require member states to enforce transport standards that adequately protect the health and well-being of animals, the standards applied vary. While the Secretariat of the Convention has urged member states to adopt the International Air Transport Association (IATA) Live Animals Regulations²³ and the CITES Guidelines for the Non-Air Transport of Live Wild Animals and Plants,²⁴ few countries outside of the European Union (EU) have legislated to make compliance with these welfare standards mandatory because the Convention text does not require it.

The CBD also fails to take into account the welfare needs of animals which should be safeguarded if they are to be effectively conserved. The Preamble to the Convention notes that: ‘the fundamental requirement for the conservation of biological diversity is the in-situ conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings’²⁵ However, like CITES, the CBD imposes no obligations on member states to legislate to protect the welfare of wild animals. While acts of poaching and unsustainable hunting are clearly harmful to biodiversity, as well as welfare concerns, the Convention may not be used to hold parties accountable for failing to control such harms as states have no obligation to meet CBD targets.²⁶

1.2 A Failure to Connect the Health of Captive Wild Animals with Welfare

The first internationally recognised animal welfare issue was, ironically, the need to protect animal health to prevent the spread of contagious diseases and the risk of zoonotic diseases. Recognition of the increased threat of disease amongst animals with poor welfare led to the establishment of the OIE in the 1920s.²⁷ The role of this organisation remains significant today. Of the new and emerging human infectious diseases discovered in the past 50 years, 75% involve zoonosis.²⁸ Most described zoonosis is transmitted via the food system.²⁹ Today, the OIE has 182 member states/countries and sets standards for the improvement of animal health and welfare through its collaborations with the veterinary authorities in each of its member states. The OIE publishes both Terrestrial and Aquatic Animal Health Codes, the standards for which are regularly updated by its scientific committees and which must be adopted by the World Assembly of Delegates, the organisation’s

22 Stuart Harrop, ‘Wild Animal Welfare in International Law: The Present Position and the Scope for Development’ (2013) 4 *Global Policy* 381, 387.

23 <<https://www.iata.org/en/publications/store/live-animals-regulations/>> accessed 5 December 2020.

24 Resolution Conf 10.21 (Rev CoP 16).

25 CBD (n 4), Preamble.

26 Georgina M Mace and others, ‘Biodiversity Targets after 2010’ (2010) 2 *Current Opinion in Environmental Sustainability* 1, 5.

27 Michael J Bowman, ‘The Protection of Animals under International Law’ (1989) 4 *Connecticut Journal of International Law* 487, 488.

28 Louise H Taylor, Sophia M Latham and Mark EJ Woolhouse, ‘Risk Factors for Human Disease Emergence’ (2001) 356 *Philosophical Transactions of the Royal Society Biological Sciences* 983.

29 United Nations Environment Programme and International Livestock Research Institute. *Preventing the Next Pandemic: Zoonotic Diseases and How to Break the Chain of Transmission* (UNEP 2020).

highest decision making body. The Terrestrial Code sets standards for the safe international travel of animals, their husbandry and slaughter.³⁰ It includes chapters on disease prevention and control, diagnosis surveillance and notification of disease and specific standards for the breeding, housing and slaughter of commonly farmed animals to prevent OIE-listed diseases and other diseases of importance in international trade. Underscoring the importance of these measures, the World Trade Organisation (WTO) Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) promotes the utilisation of the OIE standards to protect animal and human health in all its member states.³¹

The OIE has, for many years, recognised that animal health and animal welfare are linked³² and the guidance it provides is extremely important for the global protection of animals. However, the OIE's standards for animal health and welfare have been deficient in addressing the farming of wild species. The OIE's focus, perhaps understandably, has primarily been on the links between the health and welfare of domestic animals commonly used in agriculture. Prescriptive standards set by the OIE are necessarily based on robust science. International studies on health and welfare in animal husbandry have tended to focus on domestic species as these make up the majority of animals farmed. With the exception of deer,³³ wild boar³⁴ and mink,³⁵ there have been few scientific studies done to determine best practices in farming wild animals.³⁶ Wildlife farming includes the commercial breeding of wild species for human consumption. In the EU, scientific studies of farmed animal health and welfare have largely been led by the European Food and Safety Authority's Scientific Panel on Animal Health and Welfare. The Authority provides advice to the EU on existing and emerging risks related to food safety and animal health and welfare for the purposes of supporting law and policy. However, these studies have been limited to animals bred in the EU. This has meant that what is being farmed outside of the EU has not been sufficiently studied and monitored for health risks.

Across the world, wild animals are bred for many reasons. They are used for food, for medicine, to create decorations, as pets and for exhibition. They are also farmed to meet demand levels that cannot be sustained from the wild. In the absence of any international agreement as to how they should be treated, few standards have been developed by governments for farming wild animals.³⁷ Those countries which have

30 OIE Terrestrial Animal Health Code 2019 <<https://www.oie.int/standard-setting/terrestrial-code/>> accessed 19 November 2020.

31 WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement), adopted on 1 January 1995.

32 OIE (n 1).

33 Silvana Mattiello, 'Welfare Issues of Modern Deer Farming' (2009) 8 Italian Journal of Animal Science 205.

34 Edi Piasentier, Stefano Bovolenta and Michele Viliani, 'Wild Ungulate Farming Systems and Product Quality' (2005) 29 Veterinary Research Communications 65.

35 Scientific Committee on Animal Health and Animal Welfare, *The Welfare of Animals Kept for Fur Production. Report of the Scientific Committee for Animal Health and Welfare* (European Commission 2001).

36 Rebecca J Cox and others, 'Research with Agricultural Animals and Wildlife' (2020) 60 ILAR Journal 66.

37 Hannah LI Bornett-Gauci, Joanne E Martin and David R Arney 'The Welfare of Low-volume Farm Animals during Transport and at Slaughter: a Review of Current Knowledge and Recommendations for Future Research' (2006) 15 Animal Welfare 299.

developed prescriptive standards for animal husbandry, and ensured their enforcement through legislation, have tended to focus on domestic animals.³⁸ There is limited peer-reviewed research on the welfare, husbandry and nutritional needs of rarer wild species.³⁹ A good example is provided by the Chinese pangolin, which is legally farmed in China for its scales, which are used in TCM. Pangolins do poorly in captivity and many animals rescued from illegal trade and placed in captivity on Chinese breeding farms die due to improper husbandry practices.⁴⁰ Lack of scientific data presents a significant obstacle to the development of appropriate husbandry standards to safeguard pangolins and consequently public health.

2. CHINA'S WILDLIFE FARMING PRACTICES

2.1 What is Being Farmed (Currently and Historically) and Why?

Wildlife farming is actively encouraged under China's current Wildlife Protection Law (as amended in 2016), but China has viewed wildlife breeding as a form of conservation for decades. In 1954, the Chinese Communist Party began to issue a series of directions intended to secure the breeding of endangered and rare animals to ensure the steady supply of traditional Chinese medicines.⁴¹ From its earliest inception in 1989, the Wildlife Protection Law promoted the utilisation of wild animals as resources to meet market demand. However, it was not until September 2004 that the State Forestry Bureau, the national bureau with charge of wildlife protection and management in China issued its 'Guiding Opinion on Promoting the Sustainable Development of Wild Animals and Plants', which expressly endorsed the captive breeding of 54 wild animals to meet market demand for consumption.⁴² The Guiding Opinion required Forestry officials to actively promote the breeding and market supply of terrestrial wild animals for which mature breeding technology had been developed. A list of 54 species was selected for active breeding by the Ministry for Forestry in August 2003,⁴³ despite all having been classified under the Wildlife Protection Law as of important ecological, scientific or social value to China. The Opinion made clear that captive breeding of wild animals was to be encouraged on the principle that growing market demand for wild animal products could be met through government-supported wildlife farming, reducing the likelihood of poaching and illegal smuggling.⁴⁴ Based on this paradigm, China's largest single species wildlife

38 Margaret E Cooper, 'Legal and Ethical Aspects of New Wildlife Food Sources' (1995) 4 *Biodiversity and Conservation* 322.

39 Cox and others (n 36) 68.

40 Daniel WS Challender and others, 'Evaluating the Feasibility of Pangolin Farming and its Potential Conservation Impact' (2019) 20 *Global Ecology and Conservation* e00714.

41 Jian Zhang Ma, *Research Report on the Sustainable Development Strategy of China's Wildlife Farming Industry* (Chinese Academy of Engineering, 2017) 130 <<http://106.3.149.172/ZKbaogao/ZkbgDetail?sysid=2089>> accessed 19 November 2020 (in Chinese).

42 State Forestry Bureau, 'Guiding Opinions on Promoting the Sustainable Development of Wild Animals and Plants' [2004] No 157.

43 State Forestry Bureau, 'List of 54 Terrestrial Wildlife Species with Mature Domestication and Breeding Technology' (2003) 24 *Chinese Journal of Wildlife* 51.

44 Ma and others (n 41) 4.

farming operation, the bear bile industry, has touted itself as a national success in producing over 10 tonnes of bear bile powder annually for medicinal use.⁴⁵ In reality, wild populations of Asiatic black bears, the main species used by the industry, continue to face hunting pressure in China,⁴⁶ as well as in neighbouring Lao People's Democratic Republic, Myanmar and Viet Nam, where they are poached to supply Chinese bear farms.⁴⁷

The wildlife breeding industry has grown to provide significant economic and social value to China. At the end of 2016, the value of China's annual output from wildlife breeding was estimated to exceed 520 billion yuan with the industry employing over 14 million people,⁴⁸ many of whom are unskilled rural workers operating family businesses.⁴⁹ The wildlife industry has been an important means of lifting rural people out of poverty. Wild animals in China are bred for food, medicine, exhibition, the pet trade and scientific research. Most workers are employed in the fur and food industries.⁵⁰ Animals legally bred have included mammals such as antelope, badger, bear, civet, coypu, deer, ferret, fox, hamster, macaque, mink, muskrat, pangolin, porcupine, rat, raccoon dog, rhino, squirrel, tiger, wild boar; birds, such as canary, emu, finch, guinea fowl, ostrich, parrot, partridge, peacock, pheasant, quail; and a variety of reptiles and amphibians (crocodile, snake, turtle and frog).⁵¹ Some species are bred for multiple purposes.

On 24 February 2020, in the wake of COVID-19, the Standing Committee of the National People's Congress announced a ban on the hunting, breeding, trading, transporting and consumption of wild animals for food.⁵² Prior to the ban, only state-protected species had any protection from being sold for food under the Wildlife Protection Law and even those could be sold for food, if the government deemed their breeding populations stable enough to permit it and the animals were sold with special markings to determine origin.⁵³

Species not enjoying state protection could be farmed and eaten, subject to provisions in China's Wildlife Protection Law, Animal Husbandry Law and Animal Epidemic Prevention Law controlling hunting, breeding and quarantine. The

45 *ibid* 6.

46 Richard Corlett 'The Impact of Hunting on the Mammalian Fauna of Tropical Asian Forests' (2007) 39 *Biotropica* 292; Piao Zhengji and others 'Population Size Variation of Black Bear (*Ursus thibetanus*) and Brown Bear (*Ursus arctos*) between 1986 to 2010 in the Changbai Mountain Nature Reserve, China' (2012) 47 *Chinese Journal of Zoology* 66.

47 Kaitlyn-Elizabeth Foley and others, *Pills, Powders, Vials and Flakes: The Bear Bile Trade in Asia* (TRAFFIC 2011) <https://www.traffic.org/publications/reports/pills-powders-vials-flakes-the-bear-bile-trade-in-asia/> accessed 19 November 2020.

48 Ma and others (n 41) 53–54.

49 *ibid* 87.

50 *ibid* 53.

51 *ibid* 7.

52 Standing Committee of the National People's Congress, 'Decision of the Standing Committee of the National People's Congress on a Complete Ban on Illegal Wildlife Trade and the Elimination of the Unhealthy Habit of Indiscriminate Wild Animal Meat Consumption for the Protection of Human Life and Law' adopted at the 16th Meeting of the Standing Committee of the Thirteenth National People's Congress, 24 February 2020.

53 State Forestry Bureau, 'List of Terrestrial Wildlife under Special State Protection for Captive Breeding', effective 1 July 2017.

legalisation of the use of even nationally protected animals in trade has helped to develop strong markets in China for deer antler wine, frozen crocodile meat and wine tonics made from various big cat bones. Breeding of wildlife also supports the expanding TCM industry which utilises musk, bear bile, pangolin scales, tiger bone and rhino horn as key ingredients.⁵⁴

The February 2020 ban on the consumption of wild animals relates only to terrestrial species.⁵⁵ Aquatic animals may still be farmed and sold for food, including state-protected endangered species on the National Key Protected Aquatic Wild Animals for Farming List, such as the Chinese giant salamander (a CITES Appendix I listed species). With regard to terrestrial animals, it was initially unclear whether the government would permit some wild animals of mixed use, such as mink, fox and the raccoon dog, to continue to be farmed only for pelts or if their carcasses would be permitted to be sold for food. A consultation document drafted by the Ministry for Agriculture and Rural Affairs in early April suggested they could be farmed for fur only.⁵⁶ Civet cats and bamboo rats may no longer be farmed for food. It is unclear whether civets will continue to be permitted to be farmed for fur and TCM. Bear bile, saiga horn and pangolin scales from approved sources are expected to continue to be permitted to be bred and used for TCM under Article 29 of the Wildlife Protection Law and article 1 of the Traditional Chinese Medicine Law, which guarantees and promotes the development of TCM. The February 2020 ban specifically permits the continued use of wild animals for scientific research, medical use, and display, although it suggests that these will be subject to strict inspection, approval and quarantine measures.⁵⁷ A Notification by the National Forestry and Grasslands Administration issued on 8 April 2020 encouraged officials to support those farming wild animals for food to transition to breeding their animals for use in scientific research, traditional Chinese medicine or exhibitions.⁵⁸ In May 2020, Hunan was the first to introduce a province-wide policy providing compensation to all wildlife farmers who chose to cease operations involving prohibited animals, or move to raising permissible species only.⁵⁹

On 27 May 2020, the Ministry for Agriculture and Rural Affairs published a list of species which could continue to be raised domestically under approval of the State Council and pursuant to Article 11 of the Animal Husbandry Law 2005. The new 'National Catalogue of Livestock and Poultry Genetic Resources' includes pigs, cattle, zebu, water buffalo, domestic yaks, gaur, sheep, goats, horses, donkeys, camels, rabbits, chickens, ducks, geese, turkeys, pigeons, quails, sika deer, red deer, reindeer, alpaca, guinea fowl, ring-necked pheasant, partridge, mallard, ostrich, rhea, emu,

54 The use of rhino horn and tiger bone was officially banned from use in TCM in 1993. However, a recent announcement by the Chinese State Council lifting the ban (which has subsequently been put on hold) may signal a change in policy. See Amanda Whitfort, 'China and CITES: Strange Bedfellows or Willing Partners?' (2019) 22 *Journal of International Animal Welfare Law and Policy* 342.

55 Standing Committee of the National People's Congress (n 52) para 2.

56 Ministry of Agriculture and Rural Affairs, 'Notification regarding solicitation of public opinion on the National Catalogue of Livestock and Poultry Genetic Resources' 8 April 2020.

57 Standing Committee of the National People's Congress (n 52), para 4.

58 National Forestry and Grasslands Administration Notification No 42, 8 April 2020.

59 Phoebe Zhang, 'Chinese Farmers Offered Compensation to Quit Wild Animal Trade Over Coronavirus Fears' *South China Morning Post* (Hong Kong, 18 May 2020).

mink, blue fox, Arctic fox and racoon-dog.⁶⁰ This list is expected to be confirmed when the Wildlife Protection Law is formally amended in late 2020.⁶¹ Meanwhile, some parts of the country have begun to announce penalties for consumption of animals outside of the list. Shenzhen has increased its penalties for illegally consuming protected species to fines of between 5 and 30 times the value of the animals.⁶² Tianjin has declared fines should be between 2 and 10 times the animal's value⁶³ and authorities in Guangdong province have stated offenders who consume species protected under the Wildlife Protection Law should be fined between 2 and 20 times the species value, and 1 and 5 times the value of non-protected but prohibited species.⁶⁴

It is important to note that the market value of animals plays an important part in the Chinese legal system for determining the seriousness of legal offending. In 2017, the State Forestry Administration published a list evaluating captive bred wild animals at half the value of their wild bred counterparts, for the purposes of determining their value in confiscation.⁶⁵ The value table is used by the courts to determine the seriousness of a wildlife crime and resulted in the Supreme People's Court publishing an opinion in 2000, which reduced sentencing tariffs for the illegal sale of captive bred wildlife (when compared with wild caught).⁶⁶

The idea that wild animals become domestic animals once they are captive bred has been a longstanding problem in addressing illegal trade in China. Once a poached wild animal is placed in a wildlife farm, it is considered, under the Wildlife Protection Law, to have become a domestic animal, which legalises its sale. Relying on this distinction, traders pushing back against the February 2020 ban have argued that the wild animals they breed are 'domesticated livestock' and accordingly should be legal to sell.⁶⁷

2.2 Legal Safeguards for the Protection of Farmed Animals in China

Despite China being a member of the OIE, it has promulgated only limited legislation safeguarding the welfare, as opposed to the health, of animals in transport, husbandry and at slaughter. While the OIE has no mechanism to enforce adherence by member states with the welfare standards set out in its Terrestrial Animal Health Code, it advises veterinary authorities in member countries to use the standards to

60 Ministry of Agriculture and Rural Affairs, 'National Catalogue of Livestock and Poultry Genetic Resources' (27 May 2020).

61 Xinhua, 'China to Improve, Strengthen Legal System for Public Health: Spokesperson' *Xinhuanet* (Beijing, 22 May 2020).

62 Shenzhen Daily, 'Wildlife Ban Effective May 1' *Shenzhen Government Online* (Shenzhen, 2 April 2020).

63 Feng Wei, 'Decision of the Stranding Committee of the Tianjin People's Congress' *Tianjin Daily* (Tianjin, 14 February 2020) (In Chinese).

64 Guangdong Provincial People's Government, 'Wildlife Consumers in Guangdong to face severe fine' *China Daily* (Beijing, 2 April 2020).

65 State Forestry Bureau Decree No 46, 'Method of Valuation of Wild Animals and their Products' (4 December 2017).

66 Judicial Interpretation of the Supreme People's Court on Several Issues Concerning the Specific Application of the Law in Trials of Criminal Cases Damaging Wildlife Resources, effective 11 December 2000.

67 Michael Standaert and Jonathan Zhong, 'Bamboo Rats Left in Limbo as Breeders Push Back Against China Wildlife Ban' *The Guardian* (London, 9 April 2020).

set up measures to control and prevent the spread of disease, including zoonotic ones.⁶⁸ As stated in the User's Guide to the Code:

The OIE standards are based on the most recent scientific and technical information. Correctly applied, they protect animal health and welfare and veterinary public health during production and trade in animals and animal products, and in the use of animals.⁶⁹

China's Animal Husbandry Law and the Animal Epidemic Prevention Law contain provisions requiring animal traceability, quarantine and the supervision of the administrative department for animal husbandry and veterinary medicine in the prevention and control of epidemics. However, there are few welfare-related conditions imposed on the transport of animals, no enforceable welfare requirements for the majority of wild animals farmed and insufficient protections for animals at market and slaughter.

In China, the raising of livestock and poultry is subject to the Animal Husbandry Law, and is managed by the departments responsible for animal husbandry and veterinary medicine. Under the law, 'livestock' includes wild animals as well as domestic species. Article 3 of the Animal Husbandry Law provides that:

People's governments at or above the county level shall take measures to strengthen the construction of infrastructure for animal husbandry, to encourage and support large-scale raising and breeding, to push forward the industrialized operation of animal husbandry, to increase all-round productivity of animal husbandry and to develop quality, highly efficient, ecologically sound and safe animal husbandry.

Article 25 prohibits the production or operation of livestock and poultry breeding without a license or in violation of the provisions of the license. Article 29 provides that:

The breeding livestock and poultry for sale shall have attached to them the qualification certificate of the breeding livestock and poultry issued by the breeding livestock and poultry farms, the quarantine certificate issued by the supervisory institution for animal epidemic prevention, and the breeding livestock for sale shall, in addition, have attached to them the pedigree issued by the breeding livestock and poultry farms.

Article 30 prohibits the sale of food animals without a certificate of origin and quarantine.

Article 42 is one of only two articles in the Animal Husbandry Law which relate to welfare. It provides that: 'A breeding farm of livestock and poultry shall provide

68 OIE Terrestrial Animal Health Code 2019 (n 30) User's Guide, Introduction, para 2.

69 *ibid* para 3.

suitable conditions for breeding and the environment for survival and growing to the livestock and poultry it is raising’.

Article 53 of the Husbandry Law provides that for protection of the safety of livestock and poultry, ‘necessary space, fodders and drinking water shall be provided to the livestock and poultry in the course of transportation’.⁷⁰ However, there is no power under the law to impose any criminal sanction for breaches of Article 42 or 53 and, ignoring the recommendations set out in Chapter 7 of the OIE Terrestrial Animal Health Code (the Code), no specific standards of welfare have been set for each species farmed.

Article 44 of the Husbandry Law provides that:

Persons engaged in the breeding of livestock and poultry shall, in accordance with the provisions of the Law of the People’s Republic of China on Animal Epidemic Prevention, do a good job of epidemic prevention and control among livestock and poultry.

In late 2020, China’s national Animal Epidemic Prevention Law is under review, along with the Wildlife Protection Law.⁷¹ Currently, Article 7 states that the administrative department for veterinary medicine under the State Council is responsible for animal epidemic prevention nationwide. The department is required to exercise supervision and control over the prevention of animal epidemics in respect of animal raising, slaughtering, marketing, isolation and transportation, as well as the manufacture, marketing, processing, storing and transportation of animal products.⁷² The slaughtering, marketing or transporting of animals and animal products that do not conform to the regulations of the administrative department for veterinary medicine under the State Council governing animal epidemic prevention is prohibited.⁷³

Article 43 provides that animals to be slaughtered, marketed, transported or used for exhibitions, performances or competitions, must have quarantine certificates. Article 47 provides that captured wild animals that are liable to spread animal epidemics are also required to undergo quarantine at the place where the animals are captured, and should only be farmed, marketed or transported after they have passed quarantine requirements.

Article 20 provides that markets trading in animals and animal products are subject to supervision and inspection by the administrative department for veterinary medicine. Article 53 of the Husbandry Law provides that transportation of livestock must meet the requirements for animal epidemic prevention as provided for by laws and administrative regulations and prescribed by the administrative department for animal husbandry and veterinary medicine under the State Council. Means of transportation are supposed to be cleaned and disinfected before loading and after unloading of animals.⁷⁴

70 art 53 Animal Husbandry Law PRC.

71 China Global Television Network, ‘China’s Top Legislature Reviews Revised Law on Animal Epidemic Prevention’ (CGTN 26 April 2020).

72 art 58 Animal Epidemic Prevention Law PRC.

73 *ibid* art 25.

74 *ibid* art 44.

Article 7.3.3 of the OIE Code provides that member states have the responsibility to establish minimum standards of animal welfare for animals in transport. These include requirements for inspection and certification of animals' fitness for travel, the setting of standards for facilities, containers and vehicles used for transport, the setting of standards for the competence of animal handlers, drivers and managers (including awareness of animal welfare issues) and ensuring the monitoring and evaluation of the effectiveness of welfare standards imposed. Numerous studies of outbreaks of animal disease have noted the risk of increased shedding of pathogens where transport conditions are stressful for the animal concerned.⁷⁵ Pathogens may not only be transmitted to other animals, but contaminate vehicles, cages and markets where the animals are kept.⁷⁶ To promote animal welfare and prevent the spread of disease at slaughter, Article 7.5.4 of the OIE Code requires that waiting times for slaughter should be minimised and animals should be kept in suitable groupings. Animal health should be monitored regularly and animals that are sick, weak, injured or showing visible signs of distress should be separated, and veterinary advice sought immediately.

Research undertaken in 2004 at one of the largest live animal markets in China, Xinyuan market in Guangzhou, suggested that a lack of positive welfare conditions at the market significantly contributed to the risk and spread of the severe acute respiratory syndrome (SARS-CoV).⁷⁷ The SARS virus first emerged in November 2002 in Guangdong province in Southeast China. The virus spread globally, infecting 8098 people and killing 774.⁷⁸ The outbreak of the virus was linked to the culinary habits of some southern Chinese who consumed wild game meat (hunted or farmed) as a delicacy.⁷⁹ People whose jobs involved the handling, slaughter, and sale of wild animals made up 39% of earliest cases recorded (January 2003 or earlier). Early patients were also significantly more likely than those who developed the virus in later months to be living close to markets where live wild animals were sold.⁸⁰ To combat the spread of SARS-CoV, on 29 April 2003, a China-wide ban on wildlife markets was imposed by the State Forestry Bureau.⁸¹ On 23 May 2003, SARS-CoV was linked by researchers in Hong Kong to the masked palm civet,⁸² an animal commonly farmed in China for food and TCM and sold live in markets. However after a

75 Patrick J Quinn and others, *Veterinary Microbiology and Microbial Disease* (Wiley-Blackwell 2000).

76 Donald M Broom and AF Fraser, *Domestic Animal Behaviour and Welfare* (4th edn, CUP 2007) 210.

77 Changchun Tu and others, 'Antibodies to SARS Coronavirus in Civets' (2004) 10 *Emerging Infectious Diseases* 2244; B Kan and others, 'Molecular Evolution Analysis and Geographic Investigation of Severe Acute Respiratory Syndrome Coronavirus-like Virus in Palm Civets at an Animal Market and on Farms' (2005) 79 *Journal of Virology* 11892.

78 Department of Communicable Disease Surveillance and Response, World Health Organization, *Consensus Document on the Epidemiology of Severe Acute Respiratory Syndrome (SARS)* (World Health Organization 2003).

79 Nan Shan Zhong and others, 'Epidemiology and Causes of Severe Acute Respiratory Syndrome (SARS) in Guangdong, People's Republic of China in February 2003' (2003) 362 *The Lancet* 1353.

80 Rui Heng Xu and others, 'Epidemiologic clues to SARS origin in China' (2004) 10 *Emerging Infectious Diseases* 1030.

81 State Forestry Bureau, 'State Forestry Bureau and State Industrial and Commercial Administration Bureau Emergency Notice on Strictly Controlling Wildlife Trade Use and Breeding' (29 April 2003).

82 David Cyranoski and Alison Abbott, 'Virus Detectives Seek Source of SARS in China Wild Animals' (2003) 423 *Nature* 467.

Chinese study published in June 2003 undermined earlier links between SARS-CoV and the civet,⁸³ the ban on their trade was lifted. Civets were even included in the State Forestry Bureau's August 2003 list of wild animals the government had selected for active farming to meet market demand.⁸⁴ Within China, only Hong Kong maintained its policy not to permit the import or sale of masked palm civet.

Two studies, which took place in January 2004, after the re-emergence of the virus in Guangdong, linked stressful conditions in wildlife markets to the spread of SARS-CoV. In each study, the authors observed a wide variety of species confined in small wire cages stacked on top of one another across the market. The first study, which sampled 18 civets found 78% positive for SARS-CoV. The authors concluded that stress caused to the animals by overcrowding and mixing of species at the market increased their already high susceptibility to the virus.⁸⁵ The second study, which tested 91 civets and 15 racoon dogs at the same market, found that 100% of the animals had the virus. The same study found that virus load increased with the length of time the animals spent at market, reaching a peak at 7 days.⁸⁶

Lack of welfare protection may compromise the physiological capacity of farmed animals to cope with stressful conditions on farms, in transport, at markets and at slaughter. In China, as in many parts of the world, live animals are sold at markets, to ensure they are fresh for consumption. In large markets, wild and domestic animals may be caged close to species with which they would not normally be in contact. Stress from transport, proximity to other animals and to humans may increase the accumulation of viral loads and risk of zoonosis.⁸⁷ Stress caused by poor animal welfare standards are known to cause immunosuppression, promoting the spread of disease.⁸⁸ Contrarily, positive welfare can help to protect individuals against disease.⁸⁹

While national laws have been passed in China, which seeks to prevent the spread of OIE-listed diseases, the State Council has continued to overlook the fact that animal health and welfare are linked and both must be successfully addressed for the safety of animal and public health. Chapter 7 of the OIE's Code underscores to members that the scientific assessment of animal welfare has progressed rapidly in recent years and forms the basis of the Code's recommendations.⁹⁰ Article 7.1.2 of the Code reminds member states that there is a critical relationship between animal health and animal welfare. Each affects the other. However, despite years of internal debate, China has yet to pass a national law promoting animal welfare and providing criminal sanctions for welfare abuses. This omission has helped delay the drafting and enforcement of positive welfare standards for farmed species.

83 *China Daily*, 'Civet Link with SARS Virus Still Ambiguous' (China International Information Centre 21 June 2003).

84 State Forestry Bureau (n 43).

85 Tu and others (n 77) 2246.

86 Kan and others (n 77) 18893.

87 Intergovernmental Platform on Biodiversity and Ecosystem Services, *IPBES Workshop Report on Biodiversity and Pandemics* (IPBES Secretariat 2020) 31.

88 Donald M Broom and KG Johnson, *Stress and Animal Welfare: Key Issues in the Biology of Humans and other Animals* (2nd edn, Springer Publishing 2019) 148.

89 Norbert Sachser, 'What is Important to Achieve Good Welfare in Animals?' in DM Broom (ed), *Coping with Challenge: Welfare in Animals, Including Humans* (Dahlem University Press 2001) 31.

90 art 7.1.3.

3. THE NEED FOR WELFARE PROTECTION LEGISLATION IN CHINA

3.1 The Current Lack of Legal Protection for Farmed Animals in China

Wildlife for food consumption in China has historically had six possible sources: captive species bred legally under licence, captive bred animals bred illegally, animals hunted (legally or illegally), endangered species smuggled from outside China and special state-protected species bred under licence for so called 'special purposes' (such as TCM)⁹¹ but which are known to be illegally sold for food.⁹² However, irrespective of whether animals have been legally or illegally bred, poached or trafficked, when they enter the market current laws provide inadequate controls against the poor welfare conditions which potentially drive disease transmission. Unless they fall into the sixth category and have special state protection under the Wildlife Law, wild animals enjoy almost no protection in China from ill-treatment. The few welfare standards China has for wild animals in captivity are focused on the special state-protected species bred for scientific research, TCM, public exhibition or performances, heritage conservation and other state sanctioned purposes. Article 26 is the only provision in the Wildlife Protection Law which states that wild animals should have the necessary living space and conditions required to protect their reproduction, hygiene and health. However, it is limited in application to the breeding of special state-protected species, the vast majority of which it is illegal to sell for food. Even for special state-protected species, the most highly protected of all animals under Chinese law, the few prescriptive guidelines clarifying the welfare standards they should receive are rarely enforced⁹³ and have no criminal sanctions on breach.

With the welfare requirements in the Wildlife Protection Law limited to the few special state-protected species, and insufficient laws to protect the welfare of other animals on farms and in transport, the welfare controls for most of the animals on sale in the Wuhan market, where COVID-19 is believed to have started, were entirely inadequate. Their health and safety relied on the sufficiency of quarantine checks and the traceability of their certificates of origin, safeguards which are now known to have failed.

3.2 Animal Welfare and Its Place in Animal Protection

Animal welfare standards in law evolved out of animal welfare science which assessed the needs of animals and how they cope with their environments.⁹⁴ Over the past 60 years, the five key domains of animal welfare: physical health, mental health, the ability to engage in natural behaviours, access to adequate and appropriate nutrition and an appropriate environment have been determined for many species.⁹⁵ The

91 art 27 Wildlife Protection Law PRC.

92 Zhang and others (n 8) 1493.

93 W Wang and others, 'Captive Breeding of Wildlife Resources-China's Revised Supply-side Approach to Conservation' (2019) 43 Wildlife Society Bulletin 425, 430.

94 Donald M Broom, 'Animal Welfare: Concepts and Measurement' (1991) 69 Journal of Animal Science 4167.

95 David Mellor, Emily Patterson Kane and Keith Stafford, *The Sciences of Animal Welfare* (Wiley-Blackwell Publishing 2009).

results of scientific studies have been used to determine animal welfare standards that are objectively assessable and internationally transferable.⁹⁶ In those jurisdictions where animal welfare standards have been adopted into animal welfare laws, they may be used to promote good animal health and protect animals against failures to meet minimum positive welfare standards.⁹⁷

To date, China has enacted no national animal welfare law and there are few provisions in its animal health laws which can be used to promote positive welfare. Perceived economic benefits have led to the few welfare related laws that have been promulgated. They exist to promote the successful breeding of key state protected species used for state endorsed purposes, such as TCM, or result from attempts to protect food safety and increase productivity. Animal protection laws imposed for the benefit of the animals themselves are not a part of China's national policy.

China's continuing failure to pass a national law promoting animal welfare has had significant impacts on the welfare of wild species farmed for food. While, as a member of the OIE, China has enacted laws intended to protect animal health, it has passed few laws for the purpose of protecting animal welfare. In the absence of positive welfare standards, animals are at increased risk of poor health and rendered more susceptible to disease. By limiting welfare standards, China has failed to promote the necessary conditions on wildlife farms and in transport which can act as a buffer to protect animals against immunosuppression and disease, when health controls fail.

Failing to adequately protect animal health and welfare in livestock production systems compromises the ability of animals to resist disease, increasing the risk of zoonosis.⁹⁸ The importance of legislation promoting animal welfare in safeguarding public health should not be underestimated. For many years, public health experts have warned of the serious public health risks from the intensive way we farm certain species for food, compromising animal health and welfare.⁹⁹ Most of these concerns, however, have related to the domestic species that are farmed in their billions all over the world, not the wild species which are less commonly farmed, and of less value on a global scale. Benefitting domestic species in many jurisdictions are welfare protections which, when properly enforced, can reduce the risk of immunosuppression and disease and act as safeguards against zoonosis. Until China accepts the need to address the links between animal health and animal welfare through the imposition of appropriate welfare standards for all animals, the few ad hoc animal welfare standards it has will remain inadequate safeguards for the health of its wild animals in trade.

96 Stuart Harrop and David Bowles, 'Wildlife Management, the Multilateral Trade Regime Morals and the Welfare of Animals' (1998) 1 *Journal of International Wildlife Law and Policy* 64, 65.

97 David Fraser and others, 'A Scientific Conception of Animal Welfare that Reflects Ethical Concerns' (1997) 6 *Animal Welfare* 187.

98 Aerial M Tarazona, Maria C Ceballos and Donald M Broom, 'Human Relationships with Domestic and Other Animals: One Health, One Welfare, One Biology' (2020) 10 *Animals* 43.

99 Mary J Gilchrist and others, 'The Potential Role of Concentrated Animal Feeding Operations in Infectious Disease Epidemics and Antibiotic Resistance' (2007) 115 *Environmental Health Perspectives* 313; AM O'Connor and others 'The Association Between Proximity to Animal Feeding Operations and Community Health: A Systematic Review' (2010) *PLoS One* 5 p.e9530; Philippa Douglas and others 'A Systematic Review of the Public Health Risks of Bioaerosols from Intensive Farming' (2018) 221 *International Journal of Hygiene and Environmental Health* 134.

4. THE NEED FOR IMPROVED INTERNATIONAL PROTECTION FOR WILD ANIMALS

Conspicuously absent from the international framework is a treaty to safeguard wild animal welfare (none even exists for domestic animals). China's domestic laws may be inadequate but without an international agreement as to how animals should be treated, criticism of other countries' laws and policies is problematic. Attempts have been made by several organisations, over the past century, to address this omission.¹⁰⁰ One is worthy of particular attention in the wake of the 2020 pandemic. In 1988, a group of academics sought to introduce an international convention for the protection of animals, including domestic animals and wild animals in captivity.¹⁰¹ Article 5, of the proposed treaty, which related to the care of captive wild animals, required that:

The Contracting Parties shall take all appropriate steps to assure that humans having custody of captive wildlife provide an appropriate environment and the necessary care for the wellbeing of the animals and that captive wildlife not be subjected to unnecessary suffering or cruelty.

Article 6, which related to the transportation of animals, provided that:

The Contracting Parties shall take all appropriate steps to prevent cruelty and reduce suffering to the minimum in the transportation of any animal.

Article 8, which related to the care of animals used for commercial purposes required that:

The Contracting Parties shall take all appropriate steps to assure that commercial animals shall be provided an appropriate environment and the necessary care for their wellbeing and shall be reared, maintained, used, and killed without the infliction of unnecessary suffering or cruelty.

The provisions of the agreement encouraged contracting parties to avoid trade with, and importation of, any animal or animal parts and derivatives from those States that had not become parties to the treaty.¹⁰² Where trade with non-participants occurred, certification by the non-participant country of compliance with treaty provisions and appropriate management standards for the animals being traded or imported was a necessary precondition.¹⁰³ Lack of widespread political will to pursue the agreement undermined its progress beyond the initial stages.¹⁰⁴ In the aftermath of COVID-19, the failure to reach an international agreement providing welfare safeguards to captive animals is highly regrettable. While China exports low volumes of live animals, the country is the world's largest producer of fur, with a significant portion destined for the EU.¹⁰⁵ Limitations on its ability to trade internationally would have encouraged its participation in the treaty.

100 Bowman (n 27) 496.

101 David Favre, 'An International Treaty for Animal Welfare' (2012) 18 *Animal Law* 237.

102 *ibid* 272.

103 *ibid*.

104 *ibid* 264.

105 World Bank, *World Integrated Trade Solutions (WITS) Statistics, China, Animal Exports, Top Importers of Furskins from China*, 2018 <<https://wits.worldbank.org/trade/comtrade/en/country/ALL/year/2018/tradeflow/Imports/partner/CHN/product/430211>> accessed 19 November 2020.

4.1 The OIE and 'One Health'

At an international level, in the absence of a Convention to protect wild animal health and welfare, the OIE should take the lead and use its current mandate to protect animal health and welfare to move wild animal protection (whether captive or free-living) to a global priority in all its member states/countries. The OIE advocates the 'One Health' concept which emphasises the interdependence of human and animal health and their reliance on the health of the ecosystems in which they exist.¹⁰⁶ The concept gained momentum after the SARS-CoV epidemic in 2003 and is commonly utilised in policy responses to zoonotic infections and food safety.¹⁰⁷ Along with the OIE, the concept has been endorsed by the Food and Agriculture Organisation of the United Nations (FAO), the World Health Organisation (WHO), United Nations Children's Fund (UNICEF) and the World Bank.¹⁰⁸

In 2008, the OIE, WHO and FAO published a collaborative document entitled 'Zoonotic Diseases: A Guide to Establishing Collaboration between Animal and Human Health Sectors at the Country Level'. The guide was used by WHO South-East Asia and Western Pacific Region countries to implement 'One Health' activities under the WHO's Asia Pacific Strategy for Emerging Diseases. However, in 2019, when the three organisations published their follow-up document: 'A Tripartite Guide to Addressing Zoonotic Diseases in Countries',¹⁰⁹ they noted that 'most countries have inadequate mechanisms in place for administrative and technical collaboration among the animal health, public health, and environment sectors'.¹¹⁰

Mainstreaming and implementing a 'One Health' approach was also recently endorsed in a joint report released in July 2020 by the United Nations Environment Programme¹¹¹ and the International Livestock Research Institute, in response to the COVID-19 outbreak. Their report: 'Preventing the Next Pandemic: Zoonotic Diseases and How to Break the Chain of Transmission' cites trade in wild animals and their sale and slaughter in poorly managed and unhygienic markets as pathways for future pathogen transmissions.¹¹² The report links SARS-CoV and COVID-19 with the intensification of wildlife breeding in China, poor biosecurity on farms and the laundering of illegally sourced wildlife through government supported trade.¹¹³ SARS-CoV is now thought likely to have originated in insectivorous bats, probably spreading through

106 World Organisation for Animal Health (n 13).

107 Jakob Zinsstag and others, 'Mainstreaming One Health' (2012) 9 *EcoHealth* 107.

108 Food and Agriculture Organisation of the United Nations, *Implementing 2030 Agenda for Sustainable Development: Multisectoral Dialogue and Learning Event to address Issues at the Human-Wildlife-Livestock-Ecosystem Interface in Africa* (FAO Regional Office for Africa 2019) <<http://www.fao.org/forestry/48683-08444e67d8513f11416433543ed55b26a.pdf>> accessed 19 November 2020.

109 Food and Agriculture Organisation of the United Nations, World Organisation for Animal Health and World Health Organisation, *Taking a Multisectoral, One Health Approach: A Tripartite Guide to Addressing Zoonotic Diseases in Countries* (FAO, OIE and WHO 2019).

110 *ibid* 4.

111 The Science-based Global Environmental Authority of the United Nations.

112 UNEP (n 29) 16.

113 *ibid* 25.

civets sold at live animal markets to humans.¹¹⁴ The report recommends the strengthening of sanitary controls along the entire supply chain in wild animal trade and the adoption of animal welfare standards in the care, housing and transport of both wild and domestic species and the prohibition of trade in high-risk species.¹¹⁵

As far as wild animal health is concerned, the OIE established a Working Group on Wildlife Diseases which focuses on wild animals (both captive and free-living) in 1994.¹¹⁶ While the OIE has provided guidelines on both health and welfare to prevent the spread of zoonotic disease in livestock it had not, until the epidemic occurred, addressed the need to provide similar recommendations for the farming of wild species. Responding to the pandemic in April 2020, the OIE announced the development of guidelines or standards for trade in wildlife to reduce health risks and to promote ‘sustainable and responsible practices in legal trade, transportation, capture, farming, marketing, and consumption of wildlife’.¹¹⁷

Overlapping with the ‘One Health’ concept has been the development of the ‘One Welfare’ concept. ‘One Welfare’ asserts that human welfare, social welfare and animal welfare are not distinct disciplines and need to be addressed in a holistic manner if emerging social challenges related to global public health are to be adequately addressed.¹¹⁸ It notes that poor animal welfare can impact health, including suppressing immune system functioning¹¹⁹ and, in the context of food production, the safeguarding of animal welfare has important benefits for human welfare by improving food safety.¹²⁰ Extending the ‘One Health’ concept beyond clinical aspects, the ‘One Welfare’ approach encourages policy makers to integrate their approaches to animal health, animal welfare and human well-being.

4.2 The Role of International Treaties and Agreements

Some international conventions would strengthen their impact on the threat of zoonosis by adopting the ‘One Health’ and ‘One Welfare’ approaches. With regard to international trade, a more permissive interpretation of the CITES text would assist by taking greater account of the need to protect animal health and welfare in what is permitted in live international trade in endangered species. As noted in Part 1.1 above, the Convention’s text has very little to say on the welfare of the animals traded under its auspices. The only articles that relate to the welfare protection of animals in trade, under CITES, relate to the requirement that their packaging and

114 Wendong Li and others, ‘Bats are Natural Reservoirs of SARS-like Coronaviruses’ (2005) 310 *Science* 676.

115 UNEP (n 29) 49.

116 OIE website <<https://www.oie.int/en/standard-setting/specialists-commissions-working-ad-hoc-groups/working-groups-reports/working-group-on-wildlife/>> accessed 19 November 2020.

117 World Organisation for Animal Health, *Statement of the OIE Wildlife Working Group on Wildlife Trade and Emerging Zoonotic Diseases* (OIE 2020) <https://www.oie.int/fileadmin/Home/eng/Our_scientific_expertise/docs/pdf/COV-19/A_OIEWildlifeTradeStatement_April2020.pdf> accessed 19 November 2020.

118 Tristan J Colonius and Rosemary W Earley, ‘One Welfare: a Call to Develop a Broader Framework of Thought and Action’ (2013) 242 *Journal of the American Veterinary Medical Association* 309.

119 Tarazona and others (n 98) 7.

120 R Garcia Pinillos and others, ‘One Welfare - a Platform for Improving Human and Animal Welfare’ (2016) 179 *The Veterinary Record* 412.

transport does not cause them harm¹²¹ and that importing countries have suitable facilities for receiving them.¹²² When, as occurred at the meeting of the parties in Botswana in 1983, parties have attempted to develop these provisions to secure greater protection for animals from the welfare implications of international trade, members have shown a paucity of imagination with regard to what is permitted under the Convention's articles.

In the wake of COVID-19, the need to ensure positive welfare at all stages of the supply chain, for the sake of animal health, may be less controversial. The links between wildlife trade and the spread of disease have already been expressly recognised in CITES decisions. At the 26th meeting of the Animals Committee held in Geneva and Dublin in 2012, the Committee observed three risk areas linked to the implementation of CITES.¹²³ The first of these recognised that wildlife in trade may spread disease globally. With regard to animal transport, the Secretariat of the Convention has urged member states to adopt the IATA Live Animals Regulations for air transport and the CITES Guidelines for the Non-Air Transport of Live Wild Animals and Plants. The Guidelines were adopted at the CITES CoP16 in Bangkok in 2013.¹²⁴ The Guidelines recognise that transport is an unnatural situation for an animal and may cause it stress. High levels of stress may increase susceptibility to diseases. The Guidelines provide guidance to shippers as to how to minimise stress to animals in transport with species specific advice provided for some animals. However, as the text of the Convention does not require it, adoption of the Regulations and Guidelines is not a mandatory obligation and, to date, few states have legislated to require compliance with them.¹²⁵

Other Resolutions have also sought to limit the risk of spreading disease in trade under CITES. Resolution of the Conference 9.24 (Rev CoP15) provides that in assessing the need to list an animal for protection, consideration of its vulnerability to extinction should include an assessment of the species susceptibility to threats from disease.¹²⁶ Most recently, Resolution of the Conference 17.8, passed in 2016 in South Africa, recognised that:

Animals held in captivity/transported, even for a very short period of time, may be exposed to a variety of pathogens. Release of these animals into the wild may result in introduction of disease to conspecifics or unrelated species with potentially catastrophic effects. . . While some diseases can be tested for, tests do not exist for many animal diseases. Furthermore, animals held in

121 CITES (n 2).

122 *ibid* arts III (3)(b); III (5)(b). Note also CITES Resolution Conf. 11.20 (Rev CoP18).

123 Twenty-sixth meeting of the Animals Committee, Geneva (Switzerland) 15–20 March 2012 and Dublin (Ireland) 22–24 March 2012. AC26 Doc 23 (Rev1).

124 Resolution Conf (n 24).

125 For a discussion of the welfare implications of this omission see Michael Bowman, 'Conflict or Compatibility? The Trade, Conservation and Animal Welfare Dimensions of CITES' (1998) 1 *Journal of International Wildlife Law and Policy* 9, 16.

126 Resolution Conf. 9.24 (Rev CoP15) at Annex 5.

captivity are frequently exposed to diseases not usually encountered in their natural habitat.¹²⁷

However, while useful for protecting endangered animals, re-interpreting CITES mandates to promote good health and welfare, preferably from the point of capture would not benefit the many wild species in international trade which are not endangered. While it is not yet known which animal was the host species for COVID-19, the two species which have been linked to SARS-CoV by most researchers were not endangered. Neither horseshoe bats (thought to be a potential reservoir for the virus that caused SARS-CoV) nor the masked palm civet (the most likely species through which SARS-CoV infected humans), are listed in the CITES appendices. Furthermore, like the majority of wild animals sold in China for local consumption, both species do not need to be imported. While a more permissive reading of CITES would benefit endangered species in international trade, CITES has no jurisdiction over domestic trade, even for Appendices I and II listed species. Observing this distinction, China has consistently asserted past CITES resolutions which have sought to limit captive breeding of tigers within their jurisdiction fall outside of the CITES remit.

In 2017, the CBD adopted guidelines promoting biodiversity considerations as part of the 'One Health' approach.¹²⁸ The guidelines suggest that ecosystems should be managed for the sake of their intrinsic value, as well as for the benefits they provide to humans, and that members should seek to more effectively control illegal wildlife trade given its serious impact on animal, plant and human health.¹²⁹ Like CITES, the CBD recognises the risks in illegal wildlife trade to animal, and consequently human, health. In a decision adopted in 2018, the 14th Conference of the Parties encouraged members and governments to make active use of 'One Health' guidelines.¹³⁰ In the wake of COVID-19, it is critical that such guidelines result in pragmatic change. As noted in the UNEP 2020 report:

where wild animal trade is unsustainable and wildlife populations are significantly reduced or made locally extinct, that ecosystem loses not only its biodiversity but also a protective 'biodiverse buffer' against the emergence and spread of novel zoonotic diseases.¹³¹

As noted above, the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) promotes the utilisation of the OIE standards by all its member states in an effort to control the spread of disease in trade of animals.¹³² Protection from zoonosis is one of the purposes of the SPS Agreement and

127 Resolution Conf. 17.8 (Rev CoP17) at Annex 1: CITES Guidelines for the disposal of confiscated live animals.

128 Convention on Biological Diversity, 'Guidance on integrating biodiversity consideration into One Health approaches' CBD/SBSTTA/21/9 <<https://www.cbd.int/doc/c/8e34/8c61/a535d23833e68906c8c7551a/sbstta-21-09-en.pdf>> accessed 19 November 2020.

129 *ibid* paras 21(c) and 29.

130 CBD/COP/DEC/14/4 (30 November 2018) para 3.

131 UNEP (n 29) 37.

132 SPS Agreement (n 31) art 3.1 and Annex A, art 3(b).

countries are encouraged to adopt best international standards to protect animal and public health.¹³³ General Agreement on Tariffs and Trade (GATT) Article XX(b) allows for trade restrictions based on the need for sanitary measures to protect the life/health of humans, animals or plants in an importing country. While proportionate health measures to promote the SPS Agreement are not a trade restriction,¹³⁴ there has been controversy as to whether the imposition of higher welfare standards in production methods is similarly protected from criticism.¹³⁵ It has been argued that as Article 5.2 of the SPS Agreement permits production methods to be considered in risk assessments for health, parties wishing to promote high animal welfare standards, as measures taken under the Agreement, might do so by relying on the scientific links between animal health and animal welfare.¹³⁶ Article 2.2 provides that measures taken must be based on scientific principles. The OIE has, in its Terrestrial Animal Health Code 2019, recognised the impacts of poor welfare on animal health, and set animal welfare standards for animals in transport (Chapters 7.2–7.4), in production systems (Chapters 7.09–7.14) and at slaughter (Chapter 7.5). Arguably the application of these standards, which are based on scientific assessments, would justify trade restrictions.¹³⁷ However, that interpretation has yet to be tested and, in the case of China would have limited repercussions for animal welfare. China exports few live animals and most of its trade is with Hong Kong.¹³⁸ Any ban on animal exports from China on animal health or welfare grounds would need to be widespread to exert significant enough pressure for reform.

While pursuing each of these initiatives has the capacity to improve the global protection of animal health and welfare, measures adopted in their aid may prove too piecemeal or otherwise inadequate to effectively address the threat of further global pandemics. Internationally, consideration must again be given to the setting up of an international treaty to safeguard animal welfare. Currently, no such agreement exists even for domestic animals. The Universal Declaration of Animal Welfare¹³⁹ (UDAW) prepared by The World Society for the Protection of Animals (now World Animal Protection) and presented at the Animals World Congress in June 2000 could provide a starting point from which to work.¹⁴⁰ The UDAW promotes the welfare of sentient animals of all species (whether wild or domestic, captive or free-living).¹⁴¹ It was formally adopted by the International Committee of the OIE

133 GH Stanton, 'Understanding the GATT Agreement on the Application of Sanitary and Phytosanitary Measures' <<http://www.fao.org/3/T4660T/t4660t0h.htm>> accessed 19 November 2020.

134 Peter Fitzgerald, *International Issues in Animal Law: The Impact of International Environmental and Economic Law upon Animal Interests and Advocacy* (Carolina Academic Press 2012) 208.

135 Harrop and Bowles (n 96) 81–82.

136 Derek JF Eaton, Jacques Bourgeois and Thom J Achterbosch, *Production Differentiation under the WTO: An Analysis of Labelling and Tariff or Tax Measures Concerning Farm Animal Welfare* (Agricultural Economics Research Institute (LEI) 2005) 42.

137 Charlotte E Blatner, *Protecting Animals Within and Across Borders: Extraterritorial Jurisdiction and the Challenges of Globalisation* (OUP 2019) 142.

138 World Bank, World Integrated Trade Solution (WITS) Statistics, China Animal Exports by Country and Region, 2018 <https://wits.worldbank.org/CountryProfile/en/Country/CHN/Year/2018/TradeFlow/Export/Partner/all/Product/01-05_Animal> accessed 19 November 2020.

139 World Society for the Protection of Animals (WSPA), Universal Declaration on Animal Welfare (2000).

140 Miah Gibson, 'The Universal Declaration of Animal Welfare' (2011) 16 *Deakin Law Review* 539.

141 *ibid* Appendix 1.

in 2007 on the basis that the Declaration would ‘complement and promote the work of the OIE, and facilitate global acceptance of OIE standards and their application at a national, regional and global level’.¹⁴² According to World Animal Protection’s website the Declaration has been endorsed by 40 governments to date.¹⁴³ Success in meeting the aim to have UDAW accepted by the United Nations might finally provide the springboard for an enforceable international treaty for animal welfare,¹⁴⁴ as was mooted in the 1980’s but ultimately rejected.¹⁴⁵

4.3 The Problem of the Black Market

While the absence of any enforceable international agreement protecting the health and welfare of wild animals has had serious impacts globally, it is important to note that even had an improved framework been adopted it would have provided limited protection to poached, smuggled and illegally bred animals. In the black market, safeguards promoting animal welfare are irrelevant as the legal rules will not be followed. Animals poached, and in some cases also smuggled across borders, circumvent the health safeguards provided by quarantine measures and can ignore welfare controls. Traders who breed animals without licences and sell them on the black market or disguise their origin to sell them in the legal market are unlikely to defer to regulatory requirements. However, that is not to say that imposing welfare safeguards for animals in legal trade would have no impact on the black market. The introduction of welfare standards would necessarily involve heightened scrutiny of the live animal trade in order to ensure those standards were being met. Increased regulatory oversight is an important tool in deterring offenders.¹⁴⁶

Some wild caught animals are targeted because customers prefer them to captive bred, as occurs in the wild meat trade.¹⁴⁷ Others are taken from the wild as it is cheaper to poach than farm.¹⁴⁸ Where there is no economic advantage to illegal traders in identifying their animals as wild caught, they may be laundered in legal markets allowing the species to be traded.¹⁴⁹ Illegally sourced animals may be sold alongside legally bred ones on the assumption that poached specimens or those bred in breach of licensing conditions will not be distinguishable from those that have been legally bred.¹⁵⁰ Increased inspection of wildlife trading facilities, and the animals sold from them, would help improve the detection of illegal trade. Where inspections detect

142 Resolution No XIV adopted on 24 May 2007 <<https://www.oie.int/doc/ged/D4079.PDF>> accessed 19 November 2020.

143 World Animal Protection website <https://www.worldanimalprotection.org/take-action/back-universal-declaration-animal-welfare?from=china_zh&_ga=2.134372148.451306186.1594374190-651004337.1594374190> accessed 19 November 2020.

144 Gail Tulloch and Steven White, ‘A Global Justice Approach to Animal Law and Ethics’ (2011) 6 Australian Animal Protection Journal 29.

145 Favre (n 101).

146 Neal Shover and Aaron S Routh, ‘Environmental Crime’ (2005) 32 Crime and Justice 321, 348.

147 Haitao and others (n 11).

148 Gratwicke and others (n 11).

149 Jessica A Lyons and Daniel JD Natusch, ‘Wildlife Laundering Through Breeding Farms: Illegal Harvest, Population Declines and a Means of Regulating the Trade of Green Pythons (*Morelia viridis*) from Indonesia’ (2011) 144 Biological Conservation 3073.

150 Jacob Phelps, L Roman Carrasco and Edward L Webb, ‘A Framework for Assessing Supply-side Wildlife Conservation’ (2013) 28 Conservation Biology 244.

poor welfare in animals offered for sale and traders cannot produce the requisite quarantine papers and certificates of origin to establish their legality, investigators may uncover evidence of illegal trading. Where such cases are prosecuted, convictions can assist in deterring further offending.

The imposition of local welfare regulations must be supported by crackdowns on illegal wildlife trafficking and unauthorised domestic trade through improved detection and deterrence measures. While most of the animals found in China's wet markets were able to be legally bred, any pangolin reported to have been on sale in the Wuhan market¹⁵¹ was almost certainly the victim of cross border trafficking.¹⁵² Inadequate legislation and enforcement and failures to deter offending through effective criminal sentencing have all contributed to wildlife crime across the globe. In failing to address these issues within their own borders, sovereign states have fuelled the illegal transnational trade in wildlife to become the fourth most lucrative black market in the world.¹⁵³ There has been growing recognition of the need for an international response to the problem. CITES collaborates with the United Nations Office on Drugs and Crime, the World Bank, INTERPOL and the World Customs Organisation through the International Consortium on Combating Wildlife Crime to try to encourage more effective domestic and regional responses to the problem. The COVID-19 pandemic has provided the impetus for the international community to support a more aggressive global response. In 2019, a suggestion was made by John Scanlon, former Secretary General of CITES that wildlife crime should be added as a protocol under the United Nations Convention against Transnational Organised Crime (UNTOC).¹⁵⁴ On 14 October 2020, the Global Initiative to End Wildlife Crime, which is chaired by Scanlon, released a draft of its suggested protocol. Parties to the protocol would be required to criminalise the trafficking of wild animals or plants taken in breach of international agreements to which they are a party or taken in breach of domestic or foreign laws. Parties would also be required to agree to exchange information concerning organised crime related to wildlife trafficking, share forensic samples, assist one another to verify the validity of documents, enhance border controls and act to deter demand for illegal wildlife products. If adopted, the protocol would become the fourth Protocol to the UNTOC.

On 16 October 2020 at the tenth session of the Conference of the Parties to the UNTOC, a Resolution on preventing and combating crimes that effect the environment falling within the scope of the Convention was passed. The resolution has called on parties to implement legislation which recognises appropriate environmental crimes as serious crime (punishable with imprisonment for at least 4 years), assess and mitigate corruption risks, introduce effective mechanisms to combat money

151 Graham Readfern, 'How Did Coronavirus Start and Where Did it Come From? Was it really Wuhan's Animal Market?' *The Guardian* (London, 28 April 2020).

152 Wenda Cheng, Shuang Xing and Timothy C Bonebrake, 'Recent Pangolin Seizures in China Reveal Priority Areas for Intervention' (2017) 10 *Conservation Letters* 757.

153 DP van Uhm and Rebecca WY Wong, 'Establishing Trust in the Illegal Wildlife Trade in China' (2019) 14 *Asian Journal of Criminology* 23.

154 John E Scanlon, 'Do we need a Wildlife Crime Convention?' *Op-ed, LinkedIn* (Sunnyvale, February 18, 2019).

laundering related to environmental crimes and provide for the confiscation of the proceeds of such crimes.¹⁵⁵

5. THE ADEQUACY OF CHINA'S CURRENT PROHIBITION ON TRADE IN TERRESTRIAL SPECIES FOR FOOD

Of course, no matter how efficient the global response is now, the risk of another pandemic is heightened if states do not enact and enforce laws which proactively control the threat of zoonosis by addressing its root cause. If wild animals are to continue to be farmed and used for food, pets, medicine and other purposes, nations engaging in the trade must enact farming, transport and slaughter rules which specifically protect the welfare of the species that are being cultivated. In China, this should begin with the promulgation of legislation providing animals, both domestic and wild, with appropriate welfare safeguards. In 2010, the Chinese Academy of Social Sciences released a draft animal protection law for China.¹⁵⁶ That law was a watered down version of the original draft which not only addressed overt cruelty but promoted positive animal welfare standards for all animals.¹⁵⁷ Despite being presented to the National People's Congress in March 2011, the legislation has yet to be tabled for serious discussion.

The impetus to address the lack of international and domestic protection for wild species must not be lost again. Public demand for wildlife consumption in Mainland China continued post SARS-CoV. A study before and after SARS-CoV of 1,000 residents in Hunan province, an area where wild meats are widely consumed, recorded almost no change to public attitudes towards the consumption of masked palm civets. The study found that people's interest in eating masked palm civet in 2004 had a non-significant decline of less than 1%, when compared with 2002, before the epidemic.¹⁵⁸ This was despite nearly 40% of respondents agreeing that masked palm civets were the likely carriers of SARS-CoV.¹⁵⁹ Early research interest in the origins of the virus waned after it failed to support high levels of human transmission¹⁶⁰ and in China, civet breeding continued to be promoted as a government supported enterprise right up to the outbreak of COVID-19. As part of its support to the industry, the Forestry Bureau in each province is responsible for providing domestication and breeding permits, business licences and sale and transport permits for wild animals. A report on the website of the Forestry Bureau in Jiangxi province in November 2019 stated that the Bureau had provided 200,000 yuan in subsidies to encourage

155 CTOC/COP/2020/L.9/Rev 1.

156 Chinese Academy of Social Sciences, Draft Prevention of Cruelty to Animals Law of the People's Republic of China 2010.

157 Amanda Whitfort, 'Evaluating China's Draft Animal Protection Law' (2012) 34 Sydney Law Review 347.

158 Daode Yang and others, 'Changes in Attitudes Towards Wildlife and Wildlife Meats in Hunan Province, Central China, Before and After the Severe Acute Respiratory Syndrome Outbreak' (2007) 2 Integrative Zoology 19, 21.

159 *ibid* 23.

160 Institute of Medicine and National Research Council, *Sustaining Global Surveillance and Response to Emerging Zoonotic Diseases* (The National Academies Press 2009) 146.

farmers to pivot to breeding wildlife and lift themselves out of poverty. In Wan'an County in Jiangxi province alone, 9.5 million yuan has been invested by the government in infrastructure to support civet breeding. At the end of 2018, the province had reported annual revenue of 10 billion yuan from wildlife farming.¹⁶¹

Whilst calls have been made to ban the global wildlife trade completely and permanently, the economic and social costs make this outcome unlikely. In the absence of a blanket prohibition, targeted risk management measures must be introduced to effectively address the problems highlighted by the pandemic. Within China, permanent bans on the trade and consumption of known high risk species, such as the masked palm civet and horseshoe bat, improved surveillance of animal health and compensation for those forced to leave the wildlife farming industry should all be explored.

It is important that consumer demand for wildlife is also addressed. While the introduction of a national positive list of species which may be farmed for consumption has led certain provinces to introduce criminal sanctions for trade in animals outside of the list,¹⁶² black market sales are likely to continue while demand remains strong. For the newly promulgated legal-regulatory controls to be effective they must have widespread social acceptance.¹⁶³ This may be achieved through behavioural change campaigns targeting consumer motivations to purchase wildlife for health reasons such as nutritional and medicinal value.¹⁶⁴ It is also critical that incentive programmes are tailored to ensure traders gain financially from transiting from raising banned species to legal farming opportunities.¹⁶⁵

5.1 The Prohibition on Wild Animal Trade Must be Extended beyond Food Species

The decision to ban only certain terrestrial species from trade and to limit that ban to animals bred specifically for the purpose of food has been criticised both within and outside of China. The breeding and slaughter of wild animals, whatever their purpose, carries risks for zoonotic disease. In a joint proposal submitted to the Standing Committee of the National People's Congress in March 2020, nine professors in environmental law from universities across China, called on the Chinese legislature to prohibit the captive breeding of wild animals for any purpose, including medicinal, pointing out that some high risk animals, such as civets, are bred for food, medicine and fur production.¹⁶⁶ In an open letter to the WHO on World Health

161 State Forestry and Grassland, Administration *Enlightenment of Wanan Civet Breeding Helping Forest Farmers Get Rich* (Government website of the State Forestry and Grassland Administration 29 November 2019) <http://www.forestry.gov.cn/main/72/20191128/172200782346423.html> in Chinese.

162 *Global Times*, 'Wuhan bans eating wild animals' (Globaltimes.cn, 20 May 2020).

163 Daron Acemoglu and Matthew O Jackson 'Social norms and the enforcement of laws' (2017) 15 *Journal of the European Economic Association* 245.

164 Zhang and others (n 8).

165 Laura Tomas-Walters and others 'Motivations for the Use and Consumption of Wildlife Products' (2020) *Conservation Biology*, doi: 10.1111/cobi.13578

166 Submitted by Qian Yefang, Professor, Social Law Research Center, School of Law and Politics, Zhejiang University of Technology; Cai Shouqiu, Professor, Institute of Environmental Law of Wuhan University; Sun Jiang, Professor, Animal Protection Law Research Center, Northwest University of Political Science and Law; Gao Lihong, Professor, Law School of Zhongnan University of Economics

Day 2020, 339 animal welfare and conservation organisations urged the WHO to unequivocally exclude the use of wildlife, including from captive-bred specimens, from the WHO's definition and endorsement of TCM, citing the risks of disease transmission from all aspects of the trade.¹⁶⁷

Leaving aside the question of disease, there are important conservation reasons to restrict the wildlife farming of certain species. The farming of endangered species for TCM is known to fuel poaching and has been implicated in the laundering of species targeted in the illegal wildlife trade.¹⁶⁸ Tiger breeding farms in China play a significant role in the continuing illicit sale of tiger bone medicines locally and internationally.¹⁶⁹ Farming of reptiles is also known to stimulate illegal trade¹⁷⁰ and has driven some endangered turtles within China to extinction.¹⁷¹ While CITES rules allow captive bred Appendix I species to be traded as if they are Appendix II species,¹⁷² wildlife farming of endangered species for use in TCM flouts the spirit of the Convention. CITES has long advocated that Appendix I species should not be bred for commercial purposes.¹⁷³ Several resolutions and decisions have been taken seeking to control China's captive tiger breeding operations on the basis that the tiger trade fuels poaching and threatens wild populations.¹⁷⁴ Banning the breeding of endangered species for TCM in China would make an important contribution to the protection of endangered species internationally as well as assist in preventing zoonosis by reducing the impetus for smuggling.

6. CONCLUSIONS

Warnings from scientists of the risk to humans from our increasing interactions with wildlife have provoked little international concern.¹⁷⁵ The welfare of wild animals

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167 AAP Animal Advocacy and Protection and 240 others, Open letter to the World Health Organisation (6 April 2020). <<https://lioncoalition.org/2020/04/04/open-letter-to-world-health-organisation/>> accessed 19 November 2020.

168 Phelps and others (n 150).

169 Sarah Stoner and Kanitha Krishnasamyat *Reduced to Skin and Bones Re-examined: An Analysis of Tiger Seizures from 13 Range Countries from 2000-2015* (TRAFFIC Southeast Asia 2016) <<https://www.traffic.org/site/assets/files/3691/reduced-to-skin-and-bones-re-examined.pdf>> accessed 19 November 2020.

170 Vincent Nijman and Chris R Shephard, *Wildlife Trade from ASEAN to the EU: Issues with the trade in captive-bred reptiles from Indonesia* (TRAFFIC Europe Report for the European Commission 2009) <<https://www.traffic.org/site/assets/files/9837/issues-with-the-trade-in-captive-bred-reptiles-from-indonesia.pdf>> accessed 19 November 2020.

171 Haitao and others (n 11) 6.

172 CITES art VII.4.

173 Resolution Conf. 5.10 (CoP 15).

174 Conservation of and Trade in Tigers and Other Appendix I Asian Big Cat Species, CITES Resolution Conf. 12.5 (Rev CoP17) (2016); Captive-bred and Ranches Specimens 14.69, Directed to the Parties, especially Appendix I Asian Big Cat Range States, CITES Directive 14.69 (2007); CITES Decision 17.226, CoP 17 (2016); CITES Decision 17.229, CoP 17 (2016); CITES Decisions 18.100-18.109, CoP 18 (2019).

175 Richard Kock and Cord Heuer, 'Prevention and Control of Diseases at the Interface of Livestock, Wildlife and Humans' (2019) 6 *Veterinary Sciences* 11.

has similarly been given little international priority.¹⁷⁶ Pandemics, such as COVID-19, are not unforeseeable events. They present a widely predicted consequence of the way we interact with nature, source food and trade animals.¹⁷⁷ Critical warnings have gone unheeded: we now know that poor welfare in one nation can have catastrophic effects for us all.

China is now in the final stages of revising its Wildlife Protection Law and Animal Epidemic Prevention Law.¹⁷⁸ A new Biosecurity Law has been passed and will come into effect in April 2021.¹⁷⁹ The government has also started a new crackdown on illegal wildlife trade.¹⁸⁰ While important steps forward, these measures will not be enough to ensure the health and welfare of wild animals in China. If the risks of zoonosis are to be effectively contained, criminally enforceable welfare standards for farmed species under the Animal Husbandry Law and the Wildlife Protection Law must be legislated and enforced.¹⁸¹ Further, given the significant role the farming of wildlife for TCM and other special purposes plays in driving poaching and the increased zoonosis risks which arise from the smuggling of wild animals for any purpose, trade in high-risk species in China, for any form of human consumption, should be banned completely.

The disastrous events of 2020 have taught us that decisions about animal welfare policy can impact multiple nations. Going forward, decisions about animal welfare law and policy require a global vision. Within China, a complete and permanent ban on high-risk wildlife trade for human consumption must be invoked coupled with swift deterrent punishment for offenders. Law reforms must be combined with powerful educational messages to ensure long-term behavioural change. The consumption of endangered species and the stimulus this provides to illegal wildlife trade must be effectively addressed and national standards promoting animal welfare introduced.

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176 Harrop, 'Climate Change' (n 15) 448.

177 UNEP (n 29) 11.

178 China Global Television Network (n 71).

179 Xinhua, 'China adopts law to safeguard biosecurity' (Xinhuanet 17 October 2020).

180 Xinhua, 'China to further crackdown on illegal wildlife trade' (Xinhuanet 8 February 2020).

181 On 21 October 2020, China released a first draft of its revision of the Wildlife Protection Law for public consultation. The first draft does not extend the current welfare safeguards for special state protected animals to any other species.