

# The Phenomenon of Hindsight Bias in Legislative Decision-Making and Its Correction: A Case Study of the Revision of the Prohibition on Wildlife Consumption in the Wildlife Protection Law of the People's Republic of China

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Legislative decision-making driven by specific events is inevitably influenced by hindsight bias. In response to the zoonotic hypothesis during the early stages of the COVID-19 pandemic, China swiftly enacted a comprehensive policy prohibiting the consumption of wildlife. While this policy effectively addressed legislative gaps and mitigated foodborne public health risks in the short term, the influence of hindsight bias resulted in issues such as excessive regulation and the neglect of other contributing factors during the legislative process. Subsequent research questioning the scientific validity of the zoonotic hypothesis prompted China to revise the Wildlife Protection Law of the People's Republic of China, aiming to correct the bias by eliminating the interference of outcome-driven reasoning. However, the revised law has yet to fully overcome the negative effects of hindsight bias, falling short of adequately addressing both theoretical and practical demands.

*Keywords:* hindsight bias, legislative decision-making, wildlife protection, overregulation, issue omission

## Introduction

Since the outbreak of COVID-19, the issues surrounding the 2018 revision of the Wildlife Protection Law of the People's Republic of China (hereinafter referred to as the Wildlife Protection Law 2018) have garnered widespread attention. This attention stems from the early zoonotic hypothesis regarding the origin of the virus. According to the China-WHO Joint Mission Report on Coronavirus Disease (COVID-19) released by China's National Health Commission, the coronavirus was considered to be of zoonotic origin. Prominent Chinese health expert Academician Zhong Nanshan noted in multiple interviews that although the exact origin of the pandemic

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requires further investigation, it is highly likely that wildlife served as an intermediary host for the virus. This hypothesis sparked extensive academic discussion. Some studies suggested that the virus may have originated from certain bat species and was transmitted to human through the consumption of wildlife meat sold at the Wuhan seafood market (Zhou et al., 2020). Further research indicated that coronaviruses such as SARS-CoV (which caused the 2003 SARS epidemic) and SARS-CoV-2 (responsible for the 2019 COVID-19 pandemic) can infect a variety of animals, including farmed animals (e.g., mink), wildlife (e.g., white-tailed deer and deer mice), and zoo animals (e.g., large cats and primates) (Murphy & Ly, 2021). Based on this zoonotic hypothesis, China's National People's Congress Standing Committee urgently passed the Decision on Completely Prohibiting the Illegal Wildlife Trade, Eliminating the Habit of Consuming Wildlife, and Safeguarding Public Health and Safety (hereinafter referred to as the Decision) on February 24, 2020. The Decision explicitly banned the consumption of wildlife to mitigate potential foodborne public health risks. However, this policy caused significant disruptions to the legal wildlife farming and catering industries, sparking public debate over whether certain commonly consumed animals, such as locusts and silkworm pupae, could still be consumed. Moreover, the policy also impacted China's long-standing animal husbandry traditions, as many of the country's current domesticated animals were historically derived from wild species after generations of domestication. The Decision raised concerns about stalling the future diversity and development of animal husbandry. Following the implementation of the Decision, the revision process of the Wildlife Protection Law 2018 was expedited. In October 2020, the Standing Committee of the 13th National People's Congress conducted the first reading of the draft revision (hereinafter referred to as the First Draft), followed by the second reading in August 2022 (hereinafter referred to as the Second Draft), and the third reading in December 2022 (hereinafter referred to as the Third Draft). Ultimately, the revised Wildlife Protection Law of the People's Republic of China (hereinafter referred to as the Wildlife Protection Law 2023) was adopted on December 30, 2022, and came into effect on May 1, 2023. This series of revisions reflects a shift from emergency responses to a more rational and systematic approach to managing foodborne risks, while also strengthening legal protections for wildlife as a whole.

It is worth noting that the fundamental assumption underlying these laws and policies—that there is a direct link between COVID-19 and the consumption of wildlife—has been challenged by subsequent research. Multiple studies have indicated that there is currently no conclusive evidence to support this assumption (Tiwari et al., 2020; Yan & Sautman, 2024). In fact, an alternative hypothesis regarding the origin of the virus—the laboratory leak hypothesis—has also sparked heated debate within the scientific community.<sup>1</sup> From a social psychology perspective, this legislative process reflects a phenomenon of “hindsight bias”. In the context of a major public health emergency, governments and the media often simplify complex issues to respond quickly to crises and placate public opinion. In this case, wildlife consumption was singled out as the primary target. Such decision-making not only amplified the perceived risks of consuming wildlife but also overlooked other potential causes of the pandemic and the underlying scientific evidence. By analyzing this phenomenon, a more comprehensive understanding can be gained of the rationale behind the Decision and the limitations of the Wildlife Protection Law revision process. This analysis further highlights the need to critically reflect on the scientific soundness of legislation and emergency policymaking driven by unexpected crises.

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<sup>1</sup> For instance, the book *Viral: The Search for the Origin of COVID-19* (2021) by American scientist Alina Chan and British author Matt Ridley explores the possibility of a laboratory origin, though it similarly lacks definitive evidence.

In simple terms, hindsight bias refers to the cognitive shift that occurs after knowing the outcome of an event, altering people's perception of their prior predictive ability (Fischhoff & Beyth, 1975). Hindsight bias leads to a distortion in memory under the influence of outcome information, resulting in an overestimation of one's predictive capabilities and an increased perception of the likelihood of a particular cause leading to the event (Blank, Nestler, Von Collani, & Fischer, 2008). In practice, hindsight bias manifests in two key ways. First, the overestimation of prior predictive abilities may lead individuals to perceive the failure to prevent an event as negligence, imposing higher preventive standards on the attributed causes. Second, this overestimation often causes individuals to overemphasize one specific cause of an outcome while neglecting other contributing factors, resulting in oversight of other critical issues. This psychological phenomenon has been applied in studies examining judicial determinations of fault (Sunstein, 2000). For instance, judges influenced by hindsight bias may, after learning the outcome of an accident, conclude that the incident was inevitable under the existing preventive measures and that the responsible party failed to implement more effective precautions. Consequently, judges may impose higher standards of care when evaluating negligence. Similarly, in legislative decision-making triggered by specific events, hindsight bias operates in a comparable manner. Upon reflecting on pre-existing legal provisions in light of the event's outcome, legislators may perceive certain legal norms as inherently flawed for allowing the event to occur. This perception often results in overregulation, with a disproportionate focus on remedying the perceived inadequacies of specific norms while neglecting other vulnerabilities in the legal framework. The theoretical model of hindsight bias typically applies to legislative decision-making driven by the feedback of outcome information from specific events, offering insights into the cognitive distortions that shape regulatory responses.

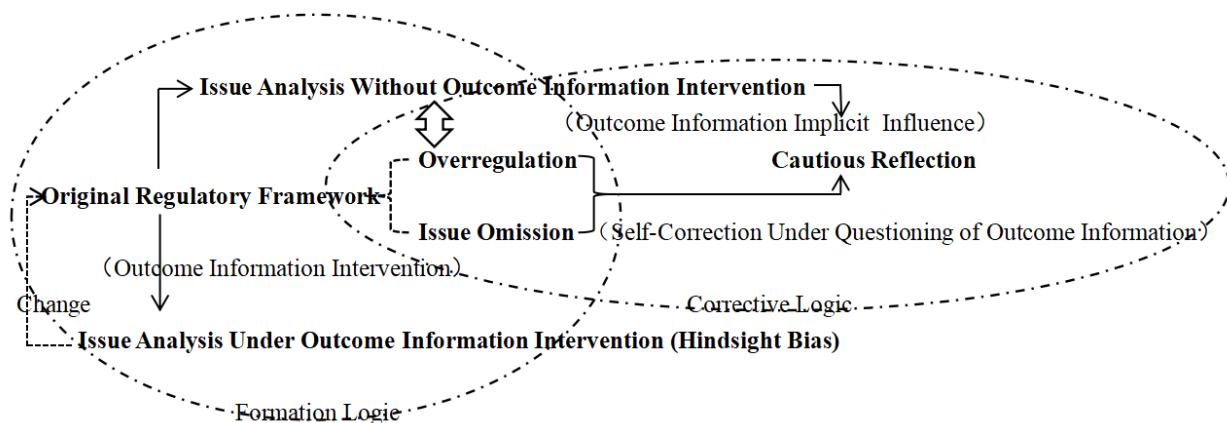


Figure 1. Conceptual diagram of hindsight bias influence on legislative decision-making.

The theoretical model of how hindsight bias influences legislative decision-making consists of two logical dimensions (as shown in Figure 1): one is the formation logic of overregulation and issue omission caused by hindsight bias after the intervention of outcome information; the other is the corrective logic of self-adjustment and the removal of outcome information interference. The first dimension includes three interconnected aspects. First, reflection on outcome information after an event influences evidence selection and integration, often being shaped by a pre-determined conclusion hypothesis (Hawkins & Hastie, 1990). This leads to erroneous judgments

resulting from hindsight bias, which fundamentally alters perceptions of the adequacy of existing regulatory measures. While the original regulatory framework may indeed have had flaws, the likelihood of recognizing these flaws and the perceived severity of the risks are significantly different under the influence of hindsight bias. Comparatively, with the intervention of outcome information, individuals tend to overestimate their predictive abilities, believing that “I always knew it would happen” (Mazursky & Ofir, 1990; 1997). This cognitive distortion shifts perceptions of the original regulatory framework, imposing higher demands on the attributed cause, thereby leading to overregulation. At the same time, the overestimation of predictive ability results in an underappreciation of the role of other contributing factors. This causes individuals to overlook the multi-causal nature of events, leading to gaps in the feedback process and neglecting other critical issues.

In practical terms, it is necessary to consider how to mitigate the influence of hindsight bias. One approach is to allow the intense feedback triggered by outcome information to gradually subside over time. As the outcome information becomes subject to doubt or loses its perceived certainty, individuals may develop a sense of “I will never really know” (Sanna, Schwarz, & Stocker, 2002). This self-correcting mechanism can, to some extent, reduce the impact of hindsight bias. Another approach involves deliberately challenging oneself to consider alternative outcomes and mentally revisiting the initial state of foresight, thereby attenuating hindsight bias. However, this method is unlikely to completely eliminate hindsight bias (Slovic & Fischhoff, 1977). Once the outcome has implicitly entered the premise of problem-solving, even conscious efforts to suppress it often fail, as individuals tend to exaggerate their knowledge rather than diminish hindsight bias (Slovic & Fischhoff, 1977). Although neither approach can entirely remove the influence of hindsight bias, the cognitive responses triggered by feedback often generate both hindsight bias and constructive insights (Hoch & Loewenstein, 1989). This duality underscores that the feedback provided by events can still yield reasonable and valuable information. To correct the influence of hindsight bias in legislative decision-making, it is essential to adopt a comprehensive and rational approach that minimizes overregulation and avoids neglecting other contributing factors in multi-causal chains. By doing so, the goal of mitigating the impact of hindsight bias on legislative decisions can be effectively achieved.

In the legislative decision-making process, clarifying and mitigating the influence of hindsight bias is critically important. The authority of the law not only depends on its clarity and stability but also requires its operability and widespread adherence. However, legislation influenced by hindsight bias is often driven by specific events, exhibiting characteristics of “campaign-style” lawmaking. This approach may result in low applicability, insufficient operability, and a lack of stability, ultimately undermining the authority of the law. During the revision of the Wildlife Protection Law 2018, while the process contributed positively to improving the legal framework, the incorporation of foodborne risk—an outcome-driven factor—into the legislative logic significantly influenced the formation of the Decision and further permeated the revision process of the Wildlife Protection Law (Draft). The intervention of foodborne risk as outcome information overly concentrated the regulatory focus of the Decision on a policy of a comprehensive ban on wildlife consumption. Although this approach quickly filled legislative gaps after the outbreak of COVID-19 and directly responded to public concerns about foodborne health risks, it also established the direction and tone for the revision of the Wildlife Protection Law 2018. However, as a temporary regulatory response to a public health emergency, the Decision reflects the substantial impact of hindsight bias on legislative decision-making. In subsequent legislative revisions, it is essential to avoid excessive regulatory reactions to specific events and to mitigate the long-term effects of

hindsight bias on the legal system. The Wildlife Protection Law 2023 eventually relaxed the ban on wildlife consumption to some extent, indicating a degree of self-correction. However, this correction remains insufficient, as the influence of hindsight bias persists throughout the legislative process.

### **The Formation Logic of Hindsight Bias in Legislative Decision-Making: An Analysis of the Decision**

The logical analysis of the influence of hindsight bias in legislative decision-making can be revealed by comparing situations before and after the intervention of outcome information, thereby identifying specific manifestations of overregulation and issue omission. In the context of outcome information intervention, the Decision, as a legislative response to foodborne safety risks, provides a reliable basis for analyzing the role of hindsight bias. On the other hand, an analysis of the regulatory framework without the influence of outcome information can be conducted through qualitative research, summarizing the issues identified by Chinese scholars regarding the Wildlife Protection Law following its 2016 revision. By comparing these two scenarios, the impact of hindsight bias on the revision of the Wildlife Protection Law can be further explored. A comparative analysis of the measures implemented in the Decision (Table 1) and the issues identified in the Wildlife Protection Law (Table 2) provides a clearer understanding of the phenomena of overregulation and issue omission.

Table 1

#### *Analysis of the Contents of the Decision*

Preface	Ensuring biosafety and ecological security while preventing major public risks.
Article 1	Strengthening penalties based on existing legal provisions.
Articles 2 & 3	(1) Emphasizing the prohibition of consuming “three-valued” wildlife (wildlife with significant ecological, scientific, or social value). (2) Expanding the scope of protected wildlife to include “other wildlife, including artificially bred and captive-bred species”, but limiting this protection strictly to a complete consumption ban. (3) Defining wildlife categories using a whitelist approach, with the Catalogue of Livestock and Poultry Genetic Resources formulated by the State Council’s competent department for animal husbandry and veterinary affairs serving as the whitelist.
Article 4	Imposing strict approval and quarantine inspection requirements on the non-consumptive utilization of wildlife.
Article 5	Promoting societal awareness and voluntary compliance.
Article 6	Improving the enforcement and regulatory framework, strengthening supervision, and enhancing accountability mechanisms.
Article 7	(1) Establishing and adjusting relevant lists and supporting regulations. (2) Supporting, guiding, and assisting affected farmers in transitioning and restructuring their production and business activities, with certain compensation measures.
Article 8	Effective date of enforcement.

Table 2

#### *Summary of Issues in the Wildlife Protection Law 2018*

Issue	Relevant Articles in the Wildlife Protection Law 2018
Narrow scope of wildlife protection	Article 2
Legislative principles prioritize utilization over protection	Article 4
Insufficient management and protection of wildlife habitats	Articles 5, 6, 11, 12, 13

Table 2 to be continued

Gaps in law enforcement and regulatory mechanisms (overlapping departmental functions, lack of a dedicated agency, quarantine loopholes)	Article 7, Chapter 3, Article 52
Lack of public awareness and voluntary compliance	Articles 8, 9
Outdated, inconsistent, and overlapping species lists	Article 10
Weak enforcement of wildlife protection responsibilities	Chapter 4
Insufficient supporting laws and regulations; lack of coordination within the legal framework	

### Overregulation in Legislative Decision-Making Under the Influence of Hindsight Bias

Foodborne risks represent a significant issue that was insufficiently addressed in previous versions of the Wildlife Protection Law, with limited discussion on the topic. Drawing lessons from the pandemic, implementing certain regulatory measures is necessary and aligns with biosafety requirements and the ethical principles of animal protection. However, it is important to note that the formulation of relevant laws and policies in China has, at the current stage, exceeded the bounds of rational decision-making and entered a state of overregulation. This “overregulation” stems from decisions deviating from rationality under the influence of specific unforeseen events. The standard for determining “overregulation” lies in assessing what the natural trajectory of such decision-making would have been in the absence of these particular events.

Initially, the proposed revisions to the Wildlife Protection Law 2018 in China paid little attention to regulating foodborne risks, focusing instead on the argument that the law’s scope of protection should not be limited to certain specific wildlife species. The Decision responded to foodborne risks by expanding the scope of the Wildlife Protection Law 2018 to include non-specified wildlife, partially addressing issues raised by Chinese scholars. However, this expansion was limited to the context of wildlife consumption and did not extend to other aspects. Moreover, the broadened prohibition on wildlife consumption raises concerns of overregulation. A comprehensive ban on the consumption of wildlife would significantly increase societal costs, and in cases unrelated to major moral issues, a command-and-control prohibition is not the optimal solution (Calabresi, 1970). Blanket bans on wildlife consumption may also hinder the development of livestock and poultry genetic resources, limiting opportunities for technological innovation in the livestock industry. This, in turn, could pose a threat to the sustainable development of the agricultural ecosystem.

Defining the scope of protection under the Wildlife Protection Law 2018 through a whitelist approach has resulted in an overly broad prohibition on wildlife consumption. From the wording of Articles 2 and 3 of the Decision, it is evident that the framework excludes only livestock and poultry regulated under the Animal Husbandry Law, effectively establishing a binary classification between wildlife and livestock/poultry. This implies that the “Catalogue of Livestock and Poultry Genetic Resources”, formulated and published by the State Council’s competent administrative department for animal husbandry and veterinary medicine, serves as a de facto whitelist to define the scope of wildlife. Under these provisions, the scope of regulatory activities would be indefinitely expanded to include all “non-nationally protected wildlife”, potentially encompassing species such as flies and mosquitoes (Zeng, Ping, & Wei, 2020). Secondly, the authority responsible for drafting the catalogue is relatively low in the administrative hierarchy, which is inconsistent with the authority granted by the Wildlife Protection Law 2018. Thirdly, a complete ban on the consumption of wildlife would severely impact the well-established and large-scale industry of legal artificial breeding. In many regions of China, this industry has been a key government-supported poverty alleviation initiative. A sudden shift from government-supported promotion

to a blanket prohibition would not only undermine the principle of governmental trust and reliance but also cause significant economic losses (Shen, 2020).<sup>2</sup> Fourthly, the prohibition would significantly impact traditional dietary customs in rural and ethnic minority areas. Laws that violate cultural traditions and public preferences are often difficult to enforce effectively. Such provisions are prone to evasion or resistance (Lösch, 2007). Ultimately, laws that fail to align with social realities risk undermining the essence of the rule of law (Qin, 2020).

Moreover, the Decision has adversely impacted the livelihoods and economic interests of individuals who depend on wildlife-related industries, disrupting existing market expectations. Article 7 of the Decision proposes compensation for individual breeders; however, the compensation is far from sufficient to address the resulting issues. Compensation is based on the withdrawal of administrative permits, rather than administrative compensation, and the compensation standard is generally equal to or lower than the actual losses incurred. Anticipated profits are not included within the scope of compensation (Ye, 2020). This inadequacy significantly increases the implicit cost of legal compliance. Additionally, sunk costs—such as investments in capital equipment, government subsidies, and corporate branding across the entire industry chain—should also be factored into the discussion.

### **Issue Omission in Legislative Decision-Making Under the Influence of Hindsight Bias**

Hindsight bias leads individuals to the mistaken belief that “I always knew it would happen” (Mazursky & Ofir, 1990; 1997). This overconfidence in predictive abilities obstructs comprehensive recognition of problems and results in a passive response to certain factors, as demonstrated in the handling of issues related to the ban on wildlife consumption. First, there has been no fundamental reform in the concept of “regulated utilization”. Following the 2016 revision of the Wildlife Protection Law 2018, the legislative framework shifted from “protection and utilization” to “protection first”. However, it still lacks institutional guarantees for standardized and normalized implementation. The conflicting goals of “protection first” and “regulated utilization” remain difficult to reconcile, often perpetuating outdated resource-centric views in practice (Chen & Shen, 2020). Currently, the development and utilization of wildlife are still encouraged, with the legislative purpose being to treat wildlife as natural resources or property for protection (Lü & Liu, 2016). Although named a “protection law”, it exhibits tendencies of a resource law (Song & Qin, 2009).

Second, the hierarchical protection system remains inadequate. The current framework limits the scope of protection to rare and endangered terrestrial and aquatic wildlife, as well as terrestrial wildlife with significant ecological, scientific, or social value. However, it fails to consider the interconnectedness of ecosystems and does not provide a reasonable tiered protection system for other wildlife (Yu & Li, 2017). While the Decision imposes a blanket ban on the consumption of other wildlife, the protection of general wildlife should not be confined to prohibiting consumption. Instead, a coordinated, tiered protection system aligned across different legal frameworks should be established.

Third, habitat protection for wildlife needs to be strengthened. Chapter 2 of the Wildlife Protection Law 2018 explicitly establishes a system for the protection of wildlife habitats. However, the list of key habitats for terrestrial wildlife has yet to be published, making it difficult to enforce related regulations and hold responsible

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<sup>2</sup> Species involved in legal artificial breeding that cannot continue to be consumed or easily repurposed include snakes, geese and ducks, pheasants, bamboo rats, porcupines, and civets. This ban affects approximately 82,818 breeding facilities, 244,358 workers, 43.91 million animals, an estimated animal stock valuation of 11.26 billion yuan, and facility investment valuation of 7.43 billion yuan. Many of these breeding industries are central to poverty alleviation projects, and transitioning away from them presents immense economic and social challenges.

parties accountable. Many wildlife habitats continue to suffer varying degrees of disturbance, destruction, pollution, and fragmentation (Shen, 2020). The current legal framework has failed to prevent the transmission of viruses within human society, partly because “existing wildlife protection laws focus on regulating human interactions, without addressing the relationships between humans, wildlife, and the broader natural environment from a holistic ecological perspective” (Guo & Meng, 2020, p. 13).

Fourth, the issue of enforcement and supervision remains unresolved at a fundamental level. Regarding the establishment of legal obligations, there are two key challenges. First, the scope of regulation remains contentious, with obligations lacking clarity. In the context of animal quarantine, the animal quarantine system under the Ministry of Agriculture and Rural Affairs was intended to serve as the most robust safeguard for biodiversity and public health. However, the Ministry has failed to promptly publish detailed quarantine regulations specifically for wildlife. The wide variety of wildlife species, combined with limited understanding of their potential as reservoirs of infectious diseases, significantly increases the difficulty of effective quarantine (Yu & Lan, 2020). In practice, the sale of wildlife with valid animal quarantine certificates is exceedingly rare, and there are significant risks posed by the introduction of exotic diseases. Second, the regulatory standards set are excessively high, making effective implementation difficult. Although a comprehensive ban may reduce enforcement costs, it fails to account for the increased societal costs associated with the expanded regulatory scope. By bringing ordinary citizens—who were previously outside the regulatory framework—under supervision, the overall regulatory burden increases. Imposing excessive legal obligations does not necessarily lead to better outcomes, and there are doubts about whether these measures can be sustainably enforced after the conclusion of “campaign-style” enforcement efforts.

Fifth, the coordination between different legal frameworks remains inadequate. Currently, various laws and regulations with differing legislative purposes govern the protection and utilization of wildlife. For the protection of rare and endangered wildlife, laws such as the Wildlife Protection Law 2018, the Regulations for the Implementation of Terrestrial Wildlife Protection, the Regulations for the Implementation of Aquatic Wildlife Protection, the Regulations on the Administration of Import and Export of Endangered Wild Fauna and Flora, and the Administrative Measures for the Licensing of Domestication and Breeding of National Key Protected Wildlife are applicable. For the protection of general animals, laws and regulations such as the Biosafety Law, the Animal Husbandry Law, the Animal Epidemic Prevention Law, the Fisheries Law, the Food Safety Law, the Entry-Exit Animal and Plant Quarantine Law, the Regulations on the Administration of Laboratory Animals, the Regulations on the Administration of Veterinary Drugs, and the Administrative Measures for the Safe Production of Animal-Derived Feed Products apply. Although the legal framework appears extensive, the varying legislative forms, levels of legal authority, and differing legislative objectives result in a lack of internal coordination. This often leads to fragmented and inconsistent implementation. For example, the Regulations for the Implementation of Terrestrial Wildlife Protection have yet to align with the Wildlife Protection Law 2018 on key provisions such as the prohibition of wildlife consumption, labeling management systems, and monitoring systems for wildlife-borne diseases. As a result, these regulatory measures have not been effectively implemented (Zhou, 2020).

### **The Corrective Logic of Hindsight Bias in Legislative Decision-Making: An Analysis of the First Draft, Second Draft, Third Draft, and Wildlife Protection Law 2023**

Following the implementation of the Decision, critical reflections on its shortcomings began to emerge. The



revisions seen in the First Draft, Second Draft, Third Draft, and ultimately the Wildlife Protection Law 2023 reflect a re-evaluation of the Decision after a period of deliberation. As the conclusion linking foodborne risks to the COVID-19 outbreak was increasingly questioned, a process of self-correction in the aftermath of hindsight bias gradually became evident. However, this self-correction has not fully escaped the influence of hindsight bias. Therefore, it is necessary to undertake a deeper second-order observation, grounded in a critical reflection on hindsight bias itself.

### **Self-correction in the First Draft, Second Draft, Third Draft, and Wildlife Protection Law 2023 Under the Influence of Hindsight Bias**

In the evolution of legal provisions across the First Draft, Second Draft, and Wildlife Protection Law 2023, one of the most notable trends is the significant decline in references to “consumption”. In the Wildlife Protection Law 2012, no provisions addressed issues related to “consumption”. By the time of the Wildlife Protection Law 2018, the term “consumption” appeared twice. Throughout the amendment process, the prohibition of wildlife consumption became one of the central issues. The term “consumption” appeared 17 times in the First Draft, decreased to 14 times in the Second Draft, and was further reduced to 13 mentions in the Wildlife Protection Law 2023.

In addition to the decreasing frequency of the term “consumption”, the language and regulatory provisions related to wildlife consumption have gradually softened throughout the amendment process. Each draft incorporated proposals aimed at moderation. During the review of the First Draft, some Standing Committee members and relevant departments suggested adopting a more cautious approach to penalties. They argued that the proposed penalties—such as business suspension, site closure, confiscation of income, and lifetime bans on engaging in relevant activities for violations such as illegal sale, consumption, or utilization of wildlife—were disproportionate to the offenses and inconsistent with the principle of proportionality. The Constitution and Law Committee accepted this recommendation and removed the corresponding penalty provisions.<sup>3</sup> In the Second Draft, some members proposed that certain wildlife species, such as scorpions, bamboo worms, and cicadas, which are widely farmed and exported for consumption, should not fall under the same regulatory framework as wild animals. In response, the Constitution and Law Committee recommended establishing a “Catalogue of Artificially Bred Terrestrial Wildlife with Significant Ecological, Scientific, and Social Value”. This would allow

<sup>3</sup> See Report by the Constitution and Law Committee of the National People's Congress on the Amendments to the Draft Revision of the Wildlife Protection Law of the People's Republic of China. [http://www.npc.gov.cn/npc/202212/t20221230\\_321007.html#:~:text=%E5%AE%AA%E6%B3%95%E5%92%8C%E6%B3%95%E5%BE%8B%E5%A7%94%E5%91%98%E4%BC%9A%E4%BA%8E7%E6%9C%8820%E6%97%A5%E5%8F%AC%E5%BC%80%E4%BC%9A%E8%AE%AE%EF%BC%8C%E6%A0%B9%E6%8D%AE%E5%B8%B8%E5%A7%94%E4%BC%9A%E7%BB%84%E6%88%90%E4%BA%BA%E5%91%98%E5%AE%A1%E8%AE%AE%E6%84%8F%E8%A7%81%E5%92%8C%E5%90%84%E6%96%B9%E9%9D%A2%E6%84%8F%E8%A7%81%E5%8F%BC%8C%E5%AF%B9%E4%BF%AE%E8%AE%A2%E8%8D%89%E6%A1%88%E8%BF%9B%E8%A1%8C%E4%BA%86%E9%80%90%E6%9D%A1%E5%AE%A1%E8%AE%AE%E3%80%82%20%E7%8E%AF%E5%A2%83%E4%B8%8E%E8%B5%84%E6%BA%90%E4%BF%9D%E6%8A%A4%E5%A7%94%E5%91%98%E4%BC%9A%E3%80%81%E5%8F%B8%E6%B3%95%E9%83%A8%E3%80%81%E8%87%AA%E7%84%B6%E8%B5%84%E6%BA%90%E9%83%A8%E3%80%81%E5%86%9C%E4%B8%9A%E5%86%9C%E6%9D%91%E9%83%A8%E3%80%81%E5%9B%BD%E5%AE%B6%E6%9E%97%E4%B8%9A%E5%92%8C%E8%8D%89%E5%8E%9F%E5%B1%80%E6%9C%89%E5%85%B3%E8%B4%9F%E8%B4%A3%E5%90%8C%E5%BF%97%E5%88%97%E5%B8%AD%E4%BA%86%E4%BC%9A%E8%AE%AE%E3%80%82%8E%E6%9C%8817%E6%97%A5%EF%BC%8C%E5%AE%AA%E6%B3%95%E5%92%8C%E6%B3%95%E5%BE%8B%E5%A7%94%E5%91%98%E4%BC%9A%E5%8F%AC%E5%BC%80%E4%BC%9A%E8%AE%AE%EF%BC%8C%E5%86%8D%E6%AC%A1%E8%BF%9B%E8%A1%8C%E4%BA%86%E5%AE%A1%E8%AE%AE%E3%80%82%20%E7%8E%B0%E5%B0%86%E9%87%8E%E7%94%9F%E5%8A%A8%E7%89%A9%E4%BF%9D%E6%8A%A4%E6%B3%95%E4%BF%AE%E8%AE%A2%E8%8D%89%E6%A1%88%E4%B8%BB%E8%A6%81%E9%97%AE%E9%A2%98%E4%BF%AE%E6%94%B9%E6%83%85%E5%86%B5%E6%B1%87%E6%8A%A5%E5%A6%82%E4%B8%8B%EF%BC%9A](http://www.npc.gov.cn/npc/202212/t20221230_321007.html#:~:text=%E5%AE%AA%E6%B3%95%E5%92%8C%E6%B3%95%E5%BE%8B%E5%A7%94%E5%91%98%E4%BC%9A%E4%BA%8E7%E6%9C%8820%E6%97%A5%E5%8F%AC%E5%BC%80%E4%BC%9A%E8%AE%AE%EF%BC%8C%E6%A0%B9%E6%8D%AE%E5%B8%B8%E5%A7%94%E4%BC%9A%E7%BB%84%E6%88%90%E4%BA%BA%E5%91%98%E5%AE%A1%E8%AE%AE%E6%84%8F%E8%A7%81%E5%92%8C%E5%90%84%E6%96%B9%E9%9D%A2%E6%84%8F%E8%A7%81%E5%8F%BC%8C%E5%AF%B9%E4%BF%AE%E8%AE%A2%E8%8D%89%E6%A1%88%E8%BF%9B%E8%A1%8C%E4%BA%86%E9%80%90%E6%9D%A1%E5%AE%A1%E8%AE%AE%E3%80%82%20%E7%8E%AF%E5%A2%83%E4%B8%8E%E8%B5%84%E6%BA%90%E4%BF%9D%E6%8A%A4%E5%A7%94%E5%91%98%E4%BC%9A%E3%80%81%E5%8F%B8%E6%B3%95%E9%83%A8%E3%80%81%E8%87%AA%E7%84%B6%E8%B5%84%E6%BA%90%E9%83%A8%E3%80%81%E5%86%9C%E4%B8%9A%E5%86%9C%E6%9D%91%E9%83%A8%E3%80%81%E5%9B%BD%E5%AE%B6%E6%9E%97%E4%B8%9A%E5%92%8C%E8%8D%89%E5%8E%9F%E5%B1%80%E6%9C%89%E5%85%B3%E8%B4%9F%E8%B4%A3%E5%90%8C%E5%BF%97%E5%88%97%E5%B8%AD%E4%BA%86%E4%BC%9A%E8%AE%AE%E3%80%82%8E%E6%9C%8817%E6%97%A5%EF%BC%8C%E5%AE%AA%E6%B3%95%E5%92%8C%E6%B3%95%E5%BE%8B%E5%A7%94%E5%91%98%E4%BC%9A%E5%8F%AC%E5%BC%80%E4%BC%9A%E8%AE%AE%EF%BC%8C%E5%86%8D%E6%AC%A1%E8%BF%9B%E8%A1%8C%E4%BA%86%E5%AE%A1%E8%AE%AE%E3%80%82%20%E7%8E%B0%E5%B0%86%E9%87%8E%E7%94%9F%E5%8A%A8%E7%89%A9%E4%BF%9D%E6%8A%A4%E6%B3%95%E4%BF%AE%E8%AE%A2%E8%8D%89%E6%A1%88%E4%B8%BB%E8%A6%81%E9%97%AE%E9%A2%98%E4%BF%AE%E6%94%B9%E6%83%85%E5%86%B5%E6%B1%87%E6%8A%A5%E5%A6%82%E4%B8%8B%EF%BC%9A)

differentiated management measures distinct from those applied to wild populations and introduced a specialized labeling system for the sale and utilization of such animals.<sup>4</sup> During the review of the Third Draft, some Standing Committee members and departments proposed revisions to Article 29, Clause 2, suggesting that wildlife species with mature and stable artificial breeding technologies should be subject to differentiated management. They further recommended refining the relevant provisions on legal responsibilities and establishing coordination mechanisms. These proposals were adopted and optimized by the Constitution and Law Committee.<sup>5</sup> Although the overarching prohibition on wildlife consumption remained unchanged, certain operational provisions were adjusted and moderated in practice.

Overall, as the conclusion linking foodborne risks to the COVID-19 outbreak was increasingly questioned and other possibilities gained some attention, the process of self-correction in the aftermath of hindsight bias gradually emerged. This is particularly evident in three key aspects. First, the approval process for wildlife breeding and farming has been simplified. Compared to the strict stance on the management of wildlife breeding and farming under the Decision, Article 25, Clause 3 of the Second Draft stipulates that artificially breeding terrestrial wildlife with significant ecological, scientific, or social value (hereinafter referred to as “three-valued wildlife”) only requires filing with the wildlife protection authority of the county-level people’s government. In contrast, the First Draft required the approval of the same authority and the acquisition of an artificial breeding permit for breeding such wildlife.

Second, implementing a hierarchical protection system for wildlife. The varying intrinsic values of wildlife and the evolving levels of human needs necessitate a tiered approach to wildlife protection (Huang & Shen, 2020). The Second Draft goes beyond the Decision’s narrow focus on foodborne risks by establishing a more comprehensive framework for hierarchical protection. At the 36th meeting of the Standing Committee of the 13th National People’s Congress, scholars proposed differentiated management based on the purpose and use of artificially bred wildlife, aligning with the principles of classification and hierarchical management. Building on the First Draft, the Second Draft introduced a classification and grading management system for artificially bred wildlife.

Third, refining enforcement and supervision mechanisms. The previous regulatory framework for wildlife protection faced various issues related to the admission, supervision, and quarantine of wildlife utilization, which the draft revisions address systematically. On one hand, the drafts build on the Decision by providing detailed provisions on the permit system, filing requirements, special labeling, and quarantine certificates. On the other hand, the drafts clarify the roles of the competent authorities and coordination mechanisms proposed in the Decision, respond to the need for a well-functioning joint enforcement mechanism, and expand the authority of wildlife protection departments. They also introduce a new mechanism for transferring cases during wildlife law enforcement. In addition, the drafts align quarantine measures with the Animal Epidemic Prevention Law and include new requirements for conducting import and export quarantine for protected wildlife. These revisions transform the vague expressions in the Decision into concrete measures, thereby clarifying enforcement plans, delineating institutional responsibilities, encouraging compliance, and addressing enforcement gaps. This reflects an enhanced focus on resolving issues related to enforcement and supervision mechanisms.

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<sup>4</sup> [http://www.npc.gov.cn/npc/c2/c30834/202212/t20221230\\_321008.html](http://www.npc.gov.cn/npc/c2/c30834/202212/t20221230_321008.html).

<sup>5</sup> [http://www.npc.gov.cn/c2/c30834/202212/t20221230\\_321012.html](http://www.npc.gov.cn/c2/c30834/202212/t20221230_321012.html).

### **A Rational Examination of the Wildlife Protection Law 2023 Under the Influence of Hindsight Bias**

A lack of sufficient awareness of hindsight bias has prevented the Wildlife Protection Law 2023 from fundamentally addressing the issues inherent in the Decision. Although the law has, to some extent, supplemented the omissions in the Decision, it largely retains the overregulation elements without the necessary critical review. Moreover, the Wildlife Protection Law 2023 itself still exhibits issue omissions, failing to comprehensively respond to both theoretical and practical demands.

First, the legal definitions and protection scope of wildlife under the Wildlife Protection Law 2023 warrant further scrutiny. To begin with, Article 2 of the Wildlife Protection Law 2023 continues the wording of the previous law, stating: “Wildlife protected under this law refers to rare and endangered terrestrial and aquatic wildlife, as well as terrestrial wildlife with significant ecological, scientific, or social value.” However, Article 31 stipulates: “The consumption of nationally protected wildlife, terrestrial wildlife with significant ecological, scientific, or social value, and other terrestrial wildlife is prohibited.” The inclusion of “other terrestrial wildlife” in Article 31 expands the scope of protection beyond that defined in Article 2, raising questions about the coherence of the legal framework. Thus, it is necessary to refine the scope of wildlife protection by incorporating additional categories of wildlife and implementing more detailed management measures. Additionally, Article 31 of the Wildlife Protection Law 2023 carries forward the Decision’s comprehensive ban on wildlife consumption. Article 29 adopts the Decision’s approach of using a whitelist (the Catalogue of Livestock and Poultry Genetic Resources) to exclude certain wildlife from regulation as domestic livestock and poultry, while Article 33 maintains the Decision’s restrictions on the catering industry. These provisions indicate that the Wildlife Protection Law 2023 still suffers from issues of overregulation. This overregulation has led to the inclusion of wildlife species not listed in the Catalogue of Livestock and Poultry Genetic Resources—but with a long-standing history of consumption in certain regions—on the prohibited list. Consequently, the law becomes difficult to enforce effectively in many localities, undermining its authority and credibility.

Second, the coexistence of protection and utilization remains problematic. Article 4 of the Wildlife Protection Law 2023, which promotes the principle of “protection first, regulated utilization”, has not been corrected. The primary objective of wildlife protection should be to ensure biodiversity and the integrity and stability of ecosystems, thereby safeguarding ecological security and supporting sustainable human development. It is crucial to recognize that different species maintain population stability and functional diversity through food webs and intricate interspecies relationships. The interconnectedness of these relationships means that the loss or decline of certain species can destabilize ecosystems, leading to an increase in pests and zoonotic diseases. However, the notion of “regulated utilization” continues to reflect a persistent issue: the treatment of wildlife as mere resources rather than integral components of ecosystems.

Third, further efforts are needed to promote the systemic and coordinated development of animal protection laws. While the Wildlife Protection Law 2023 revises several provisions from the Wildlife Protection Law 2018, it falls short of providing comprehensive improvements in practice. Specific implementation measures and detailed regulations remain outdated, and the Wildlife Protection Law 2023 lacks provisions to compel relevant authorities to fulfill their duties in a timely manner. For instance, there have been no fundamental improvements in the protection of wildlife habitats. Moreover, achieving legal coordination in the field of animal protection extends far beyond the scope of a single Wildlife Protection Law. The lack of integration and coherence between

related laws, such as the Animal Epidemic Prevention Law, the Entry-Exit Animal and Plant Quarantine Law, the Animal Husbandry Law, and the Biosafety Law, as well as the absence of a yet-to-be-drafted Animal Welfare Law, highlights the systemic challenges. Addressing the fragmentation of existing legislation and exploring pathways to integrate and align laws within the broader field of animal protection remain pressing issues.

Driven by strong public opinion during the early stages of the COVID-19 pandemic, China, despite having just revised the Wildlife Protection Law in 2018, swiftly addressed its shortcomings, demonstrating its responsiveness to public health emergencies. This latest revision placed particular emphasis on the previously overlooked issue of wildlife consumption, yielding significant positive outcomes. The regulation of wildlife consumption has effectively reduced the risk of zoonotic disease transmission, thereby strengthening public health security. It has also heightened public awareness of the importance of wildlife protection, fostering societal values of respecting nature and promoting sustainable development. China's actions have showcased its responsibility in the realms of ecological conservation and public health, offering valuable insights for other nations. However, it is undeniable that the revision process was heavily influenced by hindsight bias. Despite subsequent studies finding no conclusive evidence linking the consumption of wildlife to the COVID-19 outbreak, the prohibition of wildlife consumption became the central issue of the revision. This resulted in overregulation of wildlife consumption while neglecting other more urgent legal reforms. More than a year after the implementation of the revised law, enforcement of the wildlife consumption ban has faced significant challenges. The clandestine nature of illegal transactions in rural markets and online platforms, coupled with insufficient regulatory tools, limited enforcement resources, and incomplete implementation guidelines, has weakened the effectiveness of the law. Furthermore, some members of the public circumvent regulations by citing "traditional practices" or "artificial breeding" as justifications. Local economic interests and cultural beliefs also conflict with the comprehensive enforcement of the policy, creating additional obstacles. These developments highlight the adverse effects of hindsight bias, which, while enabling the rapid enactment of laws, raises serious doubts about their effectiveness in practice. It is foreseeable that such laws may be substantively suspended or subject to further revisions in the future. The resulting damage to the authority and credibility of the legal system, as well as the economic harm inflicted on affected industries, will likely be difficult to remedy.

## Conclusion

Hindsight bias exerts a profound influence on legislative decision-making, leading policymakers to focus disproportionately on a single, salient cause within a multi-causal chain while neglecting other potential factors. This bias results in legal frameworks that lack comprehensiveness, thereby undermining their practical effectiveness. Under the subtle influence of outcome information, legislation often prioritizes responding to societal irrationalities and public outcry rather than adopting a balanced and scientifically grounded approach. Although rational analysis can help legislators recognize the role of hindsight bias in the decision-making process and guide them toward more prudent and rational policymaking, such self-correction often only addresses overlooked issues while struggling to rectify instances of overregulation. Furthermore, even if direct interference from outcome information is minimized, its latent effects remain difficult to eliminate entirely. This underscores the need for structural reflection on the legislative process rather than merely addressing individual issues. There is no doubt that specific events play a vital role in driving legislative reform. However, it is imperative to remain

vigilant against the tendency toward irrational decision-making caused by hindsight bias during the legislative process. By adopting a more comprehensive and scientifically informed perspective, legislators can enhance the applicability and social efficacy of laws, ultimately maximizing public interest and societal welfare.

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