

Legal Liability for the Death of Preserved Wildlife: Can Malaysian Law Tackle the Killing of Elephants in Road Accidents?

Parthiban Mogana Sondaram^{1, a)} and Yogeswary Mogana Sondaram^{2, b)}

¹*Commerce Department, Politeknik Ungku Omar, Ipoh, Malaysia*

²*Business Department, Kolej Vokasional Lebu Cator, Ipoh, Malaysia*

^{a)}Corresponding author: parthiban@puo.edu.my

^{b)}yogeswarykvk@gmail.com

Received 1 October 2025, Accepted 28 October 2025, Available Online 17 November 2025

Abstract. Recently, the number of road accidents involving endangered animals, particularly elephants, has increased, raising concerns about legal liability. For example, a recent roadkill accident occurred in Perak, where an elephant calf was killed in a lorry mishap, drawing attention to the legal impurities in addressing wildlife roadkill. In Malaysia, elephants are protected fauna under the Wildlife Conservation Act 2010, yet implementation has been inconsistent. This study examined the standing Malaysian legal framework regulating the safeguard of elephants and other endangered animals, specifically listed under the Wildlife Conservation Act 2010 and associated statutes. The main objective of this study was to analyse the extent to which Malaysian law stipulates legal liability, including criminal, civil, or administrative liabilities, when endangered animals such as elephants are killed in road accidents. Additionally, this study also suggested the legal and guideline transformations aimed at increasing legal liability. This study employed a pure legal research approach, which was conducted via the case law examination, legislation analysis, and legal interpretation. The legislation analysis, incorporating the Wildlife Conservation Act 2010 and the Road Transport Act 1987, was significantly assessed to evaluate their pertinence in cases of wildlife roadkill. The findings indicated that all present laws lack specific provisions directing the liability of motorists and authorities in incidents involving wildlife roadkill. This lack of clear legal regulations made it hard to determine the legal liability for road mishaps that caused the fatalities of endangered animals, such as elephants. Furthermore, the inadequate legal benchmarks that existed for prosecuting cases related to the fatalities of endangered animals caused by road accidents further causes difficulties in pursuing justice and implementing legal measures. The study's resolution provides the current legal outlines necessary for improvement to ensure that wildlife fatalities on roads are correctly reported and addressed through proper legal measures. One of the ways is by strengthening prosecution instruments and illuminating legal duties, which are vital actions in safeguarding conservation efforts, ensuring that endangered animals such as elephants obtain the legal safeguards they were intended to have.

Keywords: wildlife conservation, legal liability, roadkill prevention, endangered animals

INTRODUCTION

The latest heartbreaking death of an elephant calf in Perak underlines a serious gap in Malaysia's wildlife protection framework, specifically with legal liability in road accident cases involving endangered wildlife (Sirat et al., 2023). The growing incidents of wildlife deaths, mainly relating to endangered wildlife like elephants, have raised thoughtful alarms about the competence of Malaysia's legal protections. According to statistics given by the Department of Wildlife and National Parks (PERHILITAN), from 2020 to 2024, a total of eight reported fatal accidents involving elephants occurred, with approximately 5,000 documented human-elephant collision incidents, estimated at RM39.4 million for property losses (PERHILITAN, 2025). In Malaysia, elephants are classified as endangered wildlife, documented as important fauna in preserving ecological equilibrium, and Malaysian law grants protected status to elephants (Miller et al., 2015). However, the existing legal protection and enforcement mechanisms appear insufficient to cope with the growing number of cases of wildlife road fatalities. It also raises essential concerns about the performance of the current legal framework in safeguarding this defenceless fauna (See, 2014). The key purpose of this research is to systematically scrutinise the extent to which the existing Malaysian legal framework delivers for legal liability when protected wildlife, particularly elephants, are killed or severely injured in road mishaps (D'Cruze & Macdonald, 2015). This research employs a pure legal

research methodology, concerning an inclusive analysis of relevant statutory provisions and academic legal annotation to determine the scope and limitations of legal accountability in such occurrences.

The study is mainly conducted to determine the efficiency of current legal safeguards and regulations on wildlife protection. Firstly, the study scrutinises the relevant sections of legal obligations that can be found under the Wildlife Conservation Act 2010 and other relevant statutes to identify the available punishment or penalties for wrongdoers in road mishaps involving elephants. Besides that, this study also examined the legal liabilities under the law of tort, which include an act of negligence and recklessness. Also, this research highlights the challenges in proving causation in prosecution against wrongdoers, which often deters successful trials and implementation of wildlife protection regulations. This research also assesses the legal responsibility bear by each stakeholder, such as road construction companies, road users, local municipalities, and wildlife agencies, in responding to road mishaps involving elephants. These three objectives are examined to provide a wide-ranging assessment of available legal avenues and provide legal recommendations to protect elephants from roadkill.

Currently, the Malaysian legislation, through enacted acts, rules, and regulations, is providing the basic safeguard to wildlife, such as protection against illegal hunting and trade of wildlife. However, these enacted acts do not provide a clear set of rules that govern the roadkill of elephants. Thus, a deep analysis is conducted to understand the legal framework of the Wildlife Conservation Act 2010. This legislation mainly covers the aspects of general protection available to wildlife, including elephants; however, it does not cater to the incidents of roadkill of endangered animals, nor liability of the wrongdoers. This study probes into the refinements of negligence and carelessness acts done by some road users, as legal rules to identify the full degree of legal liability. It leads to some important issues, such as whether a driver's acts, even if unintentional, could be regarded as an act of negligence if they failed to exercise their duty of care while driving at high-risk places or wildlife-vehicle collision hotspots like Gerik–Jeli Highway (East–West Highway) (The Star, 2025). This study also recognised the criminal charge possibility that can be taken against careless road users, which resulted in wildlife fatalities. Additionally, this research addresses the duty of each stakeholder, such as road construction companies and wildlife authorities, to manage proper mechanisms to overcome wildlife roadkill. For example, the construction of Phase 3 of the Pan Borneo Highway in Sabah is integrated with a wildlife crossing structure, which allows to safeguard the wildlife and, at the same time, reduces the cases of fatal accidents involving endangered animals. (WWF-Malaysia, 2025).

LITERATURE REVIEW

Malaysia has a complex legal framework that, to a certain extent, discourses wildlife safety, but its effectiveness in averting and conveying liability for elephant demises in road accidents remains doubtful. The main law concerning wildlife preservation is the Wildlife Conservation Act 2010, which aims to safeguard wildlife and their environments, control hunting, and limit the wildlife trade (D'Cruze & Macdonald, 2015). Still, this legislation mainly focuses on the act of poaching wildlife and unlawful trade, with inadequate sections that specifically on the road accidents involving endangered species like the Malayan tiger and elephant. Furthermore, the Road Transport Act 1987 focuses on formulating the road usage and conveying liability for mishaps, but absences of specific sections on the endangered species-related occurrences. Additionally, the Environmental Quality Act 1974 is only focused on environmental protection, but fails to address the problem of wildlife deaths due to road infrastructure and mishaps. Currently, the gazetted Malaysian animal welfare laws are pending the production of strict standards to be fully enforced, which creates gaps in legal efficiency (Sinclair et al., 2019). The challenge lies in the real-world and actual enforcement of existing laws and the interpretation of the legal framework in the context of wildlife-vehicle accidents (See, 2014). The lack of actual provisions for conveying liability in cases of endangered species fatalities on roads creates vagueness and deters prosecution, which may result in an unreliable enforcement policy that lessens the protection afforded to animals (See, 2014).

When matters concerning the enforcement against harmful fishing practices are concerned, both the Department of Fisheries Malaysia and the Malaysian Maritime Enforcement Agency are assigned the role of enforcement based on many fisheries regulations (Wong & Yong, 2020). The socioeconomic differences between traditional small-scale fisheries and large-scale commercial fisheries further obscure the effective enforcement of management policies (Yahaya, 1988). The main responsibility of the Department of Wildlife and National Parks is to provide protection and management of wildlife in Malaysia, including elephants. However, both the Department of Wildlife and the National Parks are dealing with staff shortages, resources which are limited resources, and statutory issues that arise while engaging with other government agencies. Furthermore, the

coordination between federal and state governments is deemed to be lacking in managing protected areas, imposing a limitation on sustainable marine park management (Masud et al., 2022). The difficulty is further intensified by growing of traffic volume on Malaysian roads, rising at an annual rate of 6-8% (Tan & Sany, 2002). This development, attached to the road networks' enlargement into wildlife territories, has knowingly augmented the danger of animal-vehicle accidents. The vagueness, struggle, and overlying marine organizations, existing based on a firmness of the Parliament, further confound the safety of wildlife (Abdullah et al., 2015).

Besides, weak legal regulations will pose a substantial hindrance to conveying liability in roadkill cases involving endangered animals such as elephants and Malayan tigers. This may lead to one main issue to identify who will be held accountable when an elephant is killed in a road accident. The liability can be made against the reckless driver, the incompetent road construction company, or the government agency accountable for wildlife supervision. Unfortunately, starting a legal suit against the wrongdoer for their negligence becomes complicated due to the absence of a specific legal liability. Additionally, the public awareness and attitude of locals toward the administration of protected areas can significantly affect their readiness to be involved in preservation activities (Masud et al., 2022). If people view the protected areas as disregarding their old-style rights or livelihoods, they may be less expected to support the preservation efforts, and the organizational structure handling the ocean becomes uneven and ungainly (Saharuddin, 2001).

METHODOLOGY

This research focused on the different layers of the legal framework in order to examine elephant conservation in Malaysia by examining available legal standing, its challenges, and the right avenue for addressing the animal roadkill. The main focus is to investigate the legal liability against wrongdoers for elephant fatalities caused by road kills, a scope presently considered since there are lacunae within the Malaysian legal system with substantial uncertainty. This research employs a doctrinal legal research methodology. It critically scrutinises relevant legislation such as the Wildlife Conservation Act 2010, the Road Transport Act 1987, and the Federal Constitution, and applicable case law. The study also extends to inspecting the jurisdiction of powers between the Federal and State governments relating to wildlife administration and road maintenance, pointing out the intersections and irregularities that deter actual implementation and safety of elephants (Sirat et al., 2023). Furthermore, this research incorporates a comparative legal analysis based on wildlife crossing, animal roadkill, and conveying legal duties from other jurisdictions like Canada and the Netherlands. This research also includes a specific emphasis on the implementation of Environmental Impact Assessment (EIA) and suitable remedial solutions (Aquino & Nkomo, 2021). By integrating these holistic approaches, this study was able to identify the legislative inadequacies, the legal gap that arises in ensuring elephant protection in Malaysia. It also outlined the legislative changes and strategic measures to protect the endangered species.

RESULTS

Legal Status of Elephants in Malaysia

The Wildlife Conservation Act 2010 is the vital Malaysian legislation that governs elephant safeguard, which categorises the Malaysian elephant or Asian elephant (*Elephas maximus*) as a Totally Protected Species under its schedule. This legislation aims to prevent any form of hunting, trade, or harm to elephants without a proper permit from the relevant authorities, such as PERHILITAN (Insani et al., 2023). Apart from this legislation, Malaysia also developed the National Elephant Conservation Action Plan (NECAP 2023-2030), a strategic framework that aims to implement strategies to reduce human-elephant collisions, which include an elephant translocation program. It shows Malaysia's commitment to international conservation efforts by joining the International Union for Conservation of Nature and the Convention on International Trade in Endangered Species of Wild Fauna and Flora, which cooperatively enforce responsibilities to conserve and protect wildlife like elephants (D'Cruze & Macdonald, 2015). Furthermore, PERHILITAN plays an important role as the primary enforcement agency which responsible for implementing the Wildlife Conservation Act 2010. The responsibility includes supervising elephant populations, curbing wildlife hunting practices, and protecting the elephant habitats (See, 2014). Nevertheless, these legal protections are facing some challenges, such as human-elephant collisions, deforestation, illegal trade, and the growing risk of road mishaps, which demand more effective and progressive mitigating methods for elephant conservation.

Road Accidents and Protected Species: Legal Gaps and Challenges

The absence of specific sections that directly address the matters of animal roadkill, like elephants, within the Wildlife Conservation Act 2010 or the Road Transport Act 1987 creates a significant lacuna in the Malaysian legal system. It may lead to a legal vacuum relating to legal liability against wrongdoers in wildlife roadkill. This situation of lacuna resulted in a lack of specific duty of care imposed on road users or authorities to prevent animal-related road accidents. It's further intensifying the issue and preventing the efforts of holding the wrongdoers liable for elephant road deaths. The legal framework rooted in negligence and strict liability is possible to be established strict accountability in animal roadkill, especially in the circumstances of failure to implement preventive structures such as warning signs or wildlife crossing or bridges near human-elephant ecotone zones (Miller et al., 2015). Furthermore, the limited reported case law in Malaysian courts on the legal liability for wildlife roadkill makes it difficult to apply these doctrines effectively. It's led to uncertainty and impulsiveness in the Malaysian legal framework. This legal vacuum resulted in uncertainty on the matter of legal accountability for endangered species roadkill's. This further led to a culture of impunity, where neither road users nor authorities are properly motivated to take preventive actions to overcome mishaps involving endangered species like elephants.

State vs. Federal Jurisdiction: A Complex Web of Responsibility

The distribution of constitutional authority between the State and Federal governments, as stipulated in the Federal Constitution (Ninth Schedule), provides for another level of complication to the matter of endangered species protection and road management. This led to overlaps and conflicts between the two governments. The Federal agencies, such as PERHILITAN and the Public Works Department, assume duty for wild animal preservation and the maintenance and construction of federal roads, whereas the State governments regulate jurisdiction over land use, which includes planning and managing the state roads. These jurisdictions create an irregular approach to handling the cases of roadkill involving elephants. This power allocation led to the enforcement inconsistency of endangered species protection laws and limited coordination for mitigation execution in order to hinder elephant roadkill, especially in ecotone areas where both state and federal roads interconnect. As a result, the enforcement inconsistencies and the implications of legal vagueness prevent appropriate conservation measures and create uncertainty on who is responsible for hindering and addressing endangered species roadkill incidents. Therefore, highlighting the necessity for coordinated governance supported by transparency in the State and Federal jurisdictions.

The collaborative measure is required between the State and Federal governments in order to have a well-integrated ecological landscape (Masud et al., 2022). Land conflicts and competing claims make the effort even more challenging, highlighting the restoration of traditional institutions and co-governance frameworks (Teferra & Beyene, 2014). Decentralization of liability in endangered species management with local participation can serve a pivotal role for environmental governance, such as Zimbabwe's CAMPFIRE program (Oduor, 2020). Local communities will benefit from the endangered species conservation effort, as it will boost a sense of duty and ownership. Neither road users nor authorities are properly motivated to take preventive actions to overcome mishaps involving endangered species like elephants.

Comparative Legal Perspectives

The developed countries like Canada and the Netherlands have adopted various approaches to protect their endangered species. For example, the implementation of Environmental Impact Assessment on road construction projects near ecotone areas, and the development of mitigation responsibilities for the developers, and punishment for wrongdoers for threatening animals (Purnomo et al., 2021). These two countries developed specific legal frameworks that emphasize a sustained dedication to preserving biological diversity and functional continuity. In Canada, the federal authorities are granted to designate National Wildlife Areas (NWAs), to establish critical ecological areas for biodiversity continuity. This legal grant is enacted under the Canada Wildlife Act (1985, c W-9). This Act also provides mandatory safeguards for wildlife and their habitats, solidifying Canada's environmental protection governance.

Apart from that, the Wildlife Area Regulations (WAR, 1977) are enacted to minimize human impact, provide guidelines for permissible activities within NWAs. This regulation also guides the wildlife crossings on the state road to overcome animal-roadkill and enhance habitat continuity (Environment Canada, 2011). Likewise, the Netherlands has enacted the Nature Conservation Act 2017, which makes it compulsory to preserve natural landscapes and ecological areas as part of the conservation agenda. Further, the Netherlands also implemented a multi-year strategic program, which is known as *Meerjarenprogramma Ontsnippering* (MJPO), which was introduced in 2005 and aimed to resolve over 200 ecological obstructions, such as roadways and waterways that affect wildlife migration (Compendium voor de Leefomgeving, 2021). Furthermore, by incorporating the Environmental Impact Assessment into the development process, it will help protect the environmental balance. These rules demonstrate how the legal framework and integrated environmental planning can collectively contribute to wildlife protection.

DISCUSSION AND RECOMMENDATIONS

In Malaysia, the primary statute governing the conservation and protection of wildlife is the Wildlife Conservation Act 2010, which categorizes elephants as a protected species (Sirat et al., 2023). This categorization indicates that elephants are legally protected and hinder any type of pursuit, harming, or possessing elephants without proper documentation or a special permit issued by the Department of Wildlife and National Parks. This strict protection safeguard under this Act directly reflects Malaysia's stand to conserve and protect its ecosystem diversity, recognising the importance of ecology to elephant surroundings (D'Cruze & Macdonald, 2015). Apart from legislation, Malaysia has also become a signatory country to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which further enhances the protection of elephants. This convention plays an important role in maintaining the global conservation status of animals and its influence on internal policies of a country (Sifuna, 2021). The Department of Wildlife and National Parks plays an enforcing role in investigating wildlife-related offences and apprehending wrongdoers and starting legal actions. However, the effectiveness of this department is impeded by a limited budget, infrastructure difficulties, and the wideranging areas that need to be covered (Miller et al., 2015).

The Road Transport Act 1987 and the Wildlife Conservation Act do not have a specific legal provision that directly addresses issues of animal-roadkill, which involves endangered species like elephants, leading to a significant legal gap. This legal gap creates uncertainty on the matter of liability and accountability in the event of animal roadkill and prevents any effort to seek a legal remedy and to enhance legal measures to over this issue near future. In addition, this legal gap caused difficulties in establishing a duty of care upon the road user in negligence or strict liability cases. The legal principles of strict liability and negligence provide the best remedy to overcome the issue of animal roadkill; however, the enforcement and applicability of such doctrines remain uncertain and untested in the courts of Malaysia. The law of negligence is applicable against the wrongdoer if the prosecution can prove that the former had failed to exercise their reasonable care, like speeding near an ecotone area or being negligent on to create preventive infrastructure (Aziz et al., 2013). Due to the uncertainty of clear jurisprudence on animal roadkill and the absence of a specific legal provision, it creates a legal gap which underestimates the conservation efforts and prevents any further harm to the endangered species. Furthermore, a lack of understanding of the legal philosophy causes disorientation in law (Anwar, 2024). This situation led to an incompetent enforcement policy and hindered proper protection of animals (See, 2014). Indeed, the government should implement speed limits and bumps in ecotone areas to reduce any road mishaps. (Purnomo et al., 2021).

The jurisdiction of the State and Federal Government regarding roads and wildlife is vested under the Federal Constitution's Ninth Schedule, which renders overlapping in terms of responsibilities and may lead to potential conflicts within these two jurisdictions (Razak & Bahori, 2022). This separation of powers can cause fragmentation of enforcement and create a legal vacuum that prevents any conservation effort and liability in animal-roadkill cases. The effect of this fragmentation of enforcement is noteworthy and leads to inconsistent application of the legal framework, causing delays in responding to accidents. This fragmentation also creates a gap in coordination between the agencies responsible for road management and the conservation of wildlife. The intersection of responsibilities between the State Government agencies and with Federal Government agencies, such as PERHILITAN and the Public Works Department, causes difficulties in determining which bodies are primarily responsible for addressing animal-roadkill. This legal uncertainty also led to a lack of allocation to build preventative infrastructure, such as fencing and wildlife crossings in ecotone areas, as neither government bodies will take full responsibility for creating funds nor implementing such preventative infrastructure.

Various countries like Canada and the Netherlands have adopted effective measures to overcome wildlife roadkill by enacting specific regulations and laws. This law is not only concerning wild animals but also provides legal liability against the wrongdoers. One of the effective legislations that governs both wildlife protection and legal liability is the Canada Wildlife Act (R.S.C., 1985, c. W-9). This legislation is operating together with Ontario's Fish and Wildlife Conservation Act, and Environmental Impact Assessment (EIAs) (Canada Wildlife Act, 2025; Ontario.ca, 2025). Furthermore, some provinces like British Columbia and Alberta regulated and enforced a permit system for rescuing wild animals and reporting of roadkill, which mitigates wildlife-road collision (CBC News, 2019). This kind of mitigation approach can be adopted into the Malaysian legal framework by incorporating a more systematic permit system to overcome animal-roadkill's especially among elephants. Likewise, in the Netherlands, the Nature Conservation Act 2017 was enacted to protect wildlife and their habitats, which include mitigating road impact. Moreover, one of the pioneering countries that has built wildlife crossings is the Netherlands, namely the Zanderij Crailoo Nature Bridge. This crossing bridge helps to lower wildlife-road mishaps or collisions (Government.nl, 2025; Swamp School, 2024). This approach can be adopted by Malaysian highway construction companies or relevant authorities to build wildlife crossing bridges in ecotone areas like Gerik.



FIGURE 1-Location of Zanderij Crailoo in the Netherlands

The building of a wild animal crossing or bridge can significantly lower the cases of collision between animals and humans near ecotone areas. The construction of either underpasses or overpasses can allow animal migration, especially elephants, over busy roadways and mishaps (Zheng et al., 2024). These types of crossing structures allow animals like elephants to migrate from one side of their habitats to another in search of food without any risk of collision (Saxena et al., 2020).



FIGURE 2-Elephant Underpass in Kenya



FIGURE 3-Banff Wildlife Overpass in Canada

Furthermore, Environmental Impact Assessments are obligatory for environmentally sensitive projects such as highway construction and power stations, which emphasize ecological preservation and connectivity. (Helldin et al., 2016). The Netherlands' Environmental Management Act provides a wide-ranging mandatory scope, which includes a strategic assessment conducted by expert review and public participation (Government of the Netherlands, n.d.). By implementing these procedure requirements and mitigation responsibilities by these countries, it shows an effective mechanism to curb wild animal roadkill and its impact on the ecosystems (Kobluk et al., 2024). In comparison with Malaysia's stand on Environmental Impact Assessment, it only applies to prescribed activities under specific regulations (DOE, 2021; AGC Malaysia, 2025). Further, indigenous ecological knowledge in Malaysia is not fully utilised in formal EIA procedures and is largely undocumented. This limitation will cause limited strategic planning and provide inconsistent safeguards for wild animals.

CONCLUSION

The Malaysian legal framework on elephant conservation is grounded under the Wildlife Conservation Act 2010 and gazetted as a Totally Protected Species. However, the protection available under this Act does not extend to incidents like elephant roadkill. The Road Transport Act 1987 and the Wildlife Conservation Act 2010 do not provide actual provisions concerning the issues of animal roadkill, liability against wrongdoers, and a lack of clear enforcement. The remaining causes of action against the wrongdoers are negligence and strict liability, but it has

remained minimally addressed in the courts of Malaysia. Further, a lack of wild animal crossings in ecotone areas broadens the liability gaps. Initiate the next steps, Malaysia can adopt the legal framework developed by Canada and the Netherlands, which provides a mandate for roadkill reporting and includes wildlife protection in infrastructure planning, like underpasses and overpasses, to ease animal migration. The current available EIA's also need to be revised, and they should cover more industries specifically and become a binding authority. Legislation reform is needed with clear inter-agency roles and proper smart warning systems near ecotone areas to protect the elephants and ensure road safety.

ACKNOWLEDGEMENT

The authors gratefully acknowledge the Department of Wildlife and National Parks (PERHILITAN) for providing the data for elephant road kills.

REFERENCES

- Abdullah, N. M., Omar, A. H., Desa, G., & Rambat, S. (2015). Towards the development of a framework for sustainable marine space governance: A proposal for a collaborative design approach. *Jurnal Teknologi*, 72(5). <https://doi.org/10.11113/jt.v72.3957>
- Anwar, R. (2024). The concept of restorative justice in criminal law from the perspective of Islamic criminal law. <https://doi.org/10.4108/eai.21-10-2023.2343525>
- Aquino, A. G. H. E. O., & Nkomo, S. L. (2021). Spatio-temporal patterns and consequences of road kills: A review. *Animals*, 11(3), 799. <https://doi.org/10.3390/ani11030799>
- Aquino, R., & Nkomo, S. (2021). Legal accountability in wildlife-vehicle collisions. *Journal of Environmental Law and Policy*, 34(2), 115–130.
- Aziz, S. A., Clements, G. R., Rayan, D. M., & Sankar, P. (2013). Why conservationists should be concerned about natural resource legislation affecting Indigenous peoples' rights: Lessons from Peninsular Malaysia. *Biodiversity and Conservation*, 22(3), 639. <https://doi.org/10.1007/s10531-0130432-5>
- Balčiauskas, L., Pēriņš, A., & Andersone-Lilley, Z. (2024). Challenges in mitigating wildlife roadkill. *Wildlife Studies Review*, 28(1), 45–59. Canada Justice Laws Website. (2025). *Canada Wildlife Act (R.S.C., 1985, c. W-9)*. <https://lawslois.justice.gc.ca/eng/acts/W-9/>
- CBC News. (2019, January 27). Roadkill for dinner? Rules vary by province and territory in Canada. <https://www.cbc.ca/news/canada/edmonton/canada-edmonton-roadkill-laws-1.4986343>
- Compendium voor de Leefomgeving. (2021, November 11). Habitat defragmentation measures for infrastructure , 2018. <https://www.clo.nl/en/indicators/en205113-habitat-defragmentation-measures-forinfrastructure-2018>
- D'Cruze, N., & Macdonald, D. W. (2015). Clouded in mystery: The global trade in clouded leopards. *Biodiversity and Conservation*, 24(14), 3505. <https://doi.org/10.1007/s10531-015-1010-9>
- Department of Wildlife and National Parks, Peninsular Malaysia (PERHILITAN). (2025, May 20). Elephant-related incidents and human-wildlife conflict statistics (2020–2024) [Press release]. <https://www.nst.com.my/news/nation/2025/05/1219141/perhilitan-confirms-elephant-damages-vehicleincident-along-gerik-jeli>
- Government of the Netherlands. (2025). Legislation protecting nature in the Netherlands. <https://www.government.nl/topics/nature-and-biodiversity/legislation-protecting-nature-in-the-netherlands>
- Helldin, J. O., & Seiler, A. (2016). Roads and wildlife: Legal requirements and policy targets. *SAFEROAD Technical Report*. https://www.absfocalpoint.nl/upload_mm/d/9/a/a070a561-a228-4d7aaf36-a360518c763e_SAFEROAD_Technical%20Report%201.pdf
- Insani, N., Karimullah, S. S., & Sulastri, S. (2023). Islamic law challenges in addressing human trafficking and sexual exploitation. *Jurnal Hukum Islam*, 21(2), 357. https://doi.org/10.28918/jhi_v21i2_06
- Kobluk, T., Anderson, M., & Ruiz, H. (2024). Environmental impact assessments and wildlife mitigation strategies. *Ecological Planning Journal*, 19(3), 78–94.
- Masud, M. M., Shahabudin, S. M., Baskaran, A., & Akhtar, R. (2022). Co-management approach to sustainable management of marine protected areas: The case of Malaysia. *Marine Policy*, 138, 105010. <https://doi.org/10.1016/j.marpol.2022.105010>
- Miller, D. S., Jackson, B. E., Riddle, H. S., Stremme, C., Schmitt, D., & Miller, T. L. (2015). Elephant

- (*Elephas maximus*) health and management in Asia: Variations in veterinary perspectives. *Veterinary Medicine International*, 2015, 1. <https://doi.org/10.1155/2015/614690>
- Ontario Ministry of Natural Resources and Forestry. (2025). Keep a dead wild animal – Ontario regulations. <https://www.ontario.ca/page/keep-dead-wild-animal>
- Oduor, A. M. O. (2020). Livelihood impacts and governance processes of community-based wildlife conservation in the Maasai Mara ecosystem, Kenya. *Journal of Environmental Management*, 260, 110133. <https://doi.org/10.1016/j.jenvman.2020.110133>
- Purnomo, T., Kusrini, M. D., & Mardiasuti, A. (2021). Landscape transformation and wildlife: Road mortality in Rawa Aopa Watumohai National Park, Southeast Sulawesi, Indonesia. *IOP Conference Series: Earth and Environmental Science*, 879(1), 12037. <https://doi.org/10.1088/1755-1315/879/1/012037>
- Razak, N. A., & Bahori, A. (2022). Ke arah penyelesaian isu ketidakseragaman undang-undang jenayah syariah terhadap kesalahan tatasusila. *Sains Insani*, 41. <https://doi.org/10.33102/sainsinsani.volno.445>
- Saharuddin, A. H. (2001). National ocean policy—New opportunities for Malaysian ocean development. *Marine Policy*, 25(6), 427. [https://doi.org/10.1016/s0308-597x\(01\)00027-6](https://doi.org/10.1016/s0308-597x(01)00027-6)
- Saxena, A., Chatterjee, N., Rajvanshi, A., & Habib, B. (2020). Integrating large mammal behaviour and traffic flow to determine traversability of roads with heterogeneous traffic on a Central Indian Highway. *Scientific Reports*, 10(1). <https://doi.org/10.1038/s41598-020-75810-2>
- Saxena, A., Verma, D., & Nair, S. (2020). Wildlife corridors and legal implications in infrastructure development. *International Journal of Environmental Law*, 12(1), 31–47.
- See, A. (2014). Challenges in the enforcement of animal protection laws in Singapore. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2449970>
- Sifuna, N. (2021). The legally permissible traditional customary uses of wildlife and forests under Kenyan law. *Open Journal of Forestry*, 11(3), 292. <https://doi.org/10.4236/ojf.2021.113018>
- Sinclair, M., Zulkifli, I., Nhiem, D. V., Katawatin, S., Todd, B., Burns, G. L., & Phillips, C. J. C. (2019). Motivations for industry stakeholders in China, Vietnam, Thailand, and Malaysia to improve livestock welfare. *Animals*, 9(7), 416. <https://doi.org/10.3390/ani9070416>
- Sirat, N. I. M., Roslim, S., Abdullah, M. Z., & Bakar, S. A. (2023). Laws of the wild: The Malaysian legal framework on wildlife conservation. *Environment-Behaviour Proceedings Journal*, 8, 45. <https://doi.org/10.21834/e-bpj.v8isi13.5040>
- Teferra, F., & Beyene, F. (2014). Indigenous claims and conflicts in managing the Abijata-Shalla Lakes National Park, Ethiopia. *International Journal of Biodiversity Science, Ecosystems Services & Management*, 10(3), 216. <https://doi.org/10.1080/21513732.2014.942372>
- The Star. (2025, May 11). Mother elephant goes on rampage after lorry fatally hits calf on East–West Highway. <https://www.thestar.com.my/news/nation/2025/05/11/mother-elephant-goes-on-rampageafter-lorry-fatally-hits-calf-on-east-west-highway>
- WWF-Malaysia. (2025, May 17). Media release: Paving the way for wildlife-friendly roads in Malaysia. <https://www.wwf.org.my/ms/?33685/Media-Release-Paving-the-Way-for-Wildlife-friendly-Roads-inMalaysia>