

## **Consumption Ethics for Wild Animals: An Islamic Practice❖**

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### **Abstract**

Religion, particularly Islam, plays an important role in lifestyle as well as in shaping cultural beliefs, including the teachings on consumption ethics. This ethics is based on the Shari'ah—which is derived

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from the Qurʾān and the Sunnah by Muslim jurists—and is aimed at avoiding plagues and ensuring health security. Accordingly, this article discusses some lessons on Islamic ethics regarding the consumption and hunting of wild animals for food. A scholar of Islamic jurisprudence, Shaykh Muḥammad Arshad al-Banjārī (1710–1812), authored a work on *fiqh* entitled *Sabīl al-Muhtadīn li al-Tafaquh fī Amr al-Dīn* (*The Way of the Rightly Guided People in Mastering the Commandment of Religion*) which has successfully managed to enjoin people to protect many species of wildlife in the Malay World, particularly, and in the larger region of South East Asia generally. A list of around 627 species from four major animal orders in Indonesia are listed as the following: primates, carnivores, reptiles, and amphibians—all of which are prohibited from being consumed and hunted by Muslims. They include important varieties of species the populations of which are decreasing, for example: numerous species of monkeys, bats, pangolins, tigers, and many more which are mentioned in al-Banjārī’s work. The work, thus, has helped conserve the said species of wild animals that are still present predominantly in the areas where the Muslim populations reside. If this consumption ethics can be shared with the rest of the world, it could contribute to the conservation of nature.

**Keywords**

*Fiqh*, Islamic ethics, consumption, wildlife, Indonesia, conservation.

**Introduction**

Conservation of nature and the environment and protection of wildlife through conservation areas and animal protection laws are new in the modern approach. The International Union for Conservation of Nature (IUCN) was founded in 1948.<sup>1</sup> Several government conservation organisations as well

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1. “International Union for Conservation of Nature.” *Encyclopaedia Britannica*, <https://www.britannica.com/topic/International-Union-for-Conservation-of-Nature>, accessed on 23rd July 2023.

as NGOs were founded in the 1950s and 1960s. The first organisation for the protection of nature and wildlife in the modern world was The Sierra Club which was founded in 1892. However, the reality is that modern civilisation has not been sufficiently effective in preventing the extinction of life forms. In the 20th century, the rate of extinction has rapidly increased. According to the Intergovernmental Panel on Biodiversity and Ecosystem Services, the population sizes of wild vertebrate species have tended to decline over the last 50 years on land, in freshwater, and in the sea, including global trends in insect populations that may be important as pollinators and provide other ecosystem services.<sup>2</sup> This decrease has been compounded by global anthropogenic climate change,<sup>3</sup> causing what is called the Sixth Extinction.<sup>4</sup> Species extinction rates are now a thousand times higher than the normal rate before humans became a primary contributor to extinctions. Sixteen to 33 per cent of vertebrate species are considered to be globally threatened.<sup>5</sup> However, efforts to encourage conservation action are generally based on the social and cultural context of the community in

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2. IPBES, “Summary for Policymakers of the Global Assessment Report on Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services,” *Population and Development Review*, vol. 45, 2019, <https://doi.org/10.1111/padr.12283>. this includes biodiversity, ecosystems, Mother Earth, systems of life and other analogous concepts. Nature’s contributions to people embody different concepts such as ecosystem goods and services, and nature’s gifts. Both nature and nature’s contributions to people are vital for human existence and good quality of life (human well-being, living in harmony with nature, living well in balance and harmony with Mother Earth, and other analogous concepts
  3. H.O. Pörtner, et al., “Scientific Outcome of the IPBES-IPCC Co-Sponsored Workshop on Biodiversity and Climate Change,” (Bonn: IPBES-IPCC, 2021), <https://doi.org/10.5281/zenodo.4659158>.IPBES.
  4. Elizabeth Kolbert, *The Sixth Extinction: An Unnatural History* (New York: Picador, 2015).
  5. Enrico Di Minin et al., “Global Priorities for National Carnivore Conservation under Land Use Change,” *Scientific Reports* 6, no. April (2016): 1–9, <https://doi.org/10.1038/srep23814>.

an effort to change human behaviour.<sup>6</sup> In the context of the environmental movement, there are values, attitudes, beliefs, and norms which play an important role in changing behaviour<sup>7</sup> and can be implemented through religion, particularly Islam using the edicts (*fatwā*) of scholars.<sup>8</sup>

However, “conservation” is a modern world approach not encountered in the previous two centuries. Even the term “conservation” only emerged in the 20th century and has been accepted in mainstream legislation only in the last 30 years. For example, in Indonesia, the legislation on the conservation of nature and its ecosystems began in the 1990s. In 2018, regulations regarding the prohibition and hunting of wild animals became flexible when the Ministry of Forestry in Indonesia proposed more species of wildlife to be protected. Decree Number 20 of 2018 concerning the List of Flora-Fauna Species revised the 1999 list of protected animals, and the number of protected flora and fauna has tripled—from 294 in the 1990s to 921 species in 2018. Furthermore, Indonesia has also made efforts to protect natural areas for conservation by establishing 554 conservation areas with an area of 27,134 million hectares, including 6,381 villages which comprise 1.65 million hectares of the conservation areas.

Factors such as the aforementioned are assimilated into religious life, which involves the implementation of socio-cultural factors. One of the most important and influential socio-cultural factors according to the modern perspective is religion: the

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6. Toby Park et al., *Behaviour Change for Nature: A Behavioural Toolkit for Practitioners* (Arlington: Center for Behaviour and the Environment, 2019).
  7. Icek Ajzen, “The Theory of Planned Behaviour,” *Organisational Behaviour and Human Decision Processes* 50, no. 2 (1991): 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T).
  8. Fachruddin Majeri Mangunjaya, and J. Elizabeth McKay, “Reviving an Islamic Approach for Environmental Conservation in Indonesia,” *Worldviews: Environment, Culture, Religion* 16, no. 3 (2012). <https://doi.org/10.1163/15685357-01603006>; Gugah Praharawati, et. al, “A Model of Religious Moral Approach for Peatland Ecosystem Restoration in Indonesia,” *Jurnal Manajemen Hutan Tropika* 27, no. 1 (2021): 132–42.

belief in religious teachings, including those of Islam, has an important role in conservation efforts. Islam, with its moral mission, can be an important medium that can be integrated in helping conservation efforts.<sup>9</sup>

The implementation of efforts to conserve biodiversity and endangered species must be done wisely, due to the challenges of the lack of knowledge and public awareness pertaining to the importance of biodiversity and the endangered species in people's lives. Forest damage can continue to occur—such as forest fires, illegal logging, and theft of natural resources—which can pose further risks. For example, deforestation can result in landslides and floods. Another consequence is the decline, and even extinction, of the population of the endangered species.

Population decline can continue to occur in umbrella species such as elephants and tigers.<sup>10</sup> The decline in population and the threats to Indonesia's biodiversity are generally based on three factors: (1) the loss of habitats, (2) illegal hunting and trade, and (3) criminal acts of theft of forest resources—either due to greed or a lack in care and awareness of the communities around the protected area.<sup>11</sup>

Unfortunately, sometimes even the local communities themselves are involved in hunting and illegal trade, generally due to the lack of public understanding of the potential and

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9. Shonil A. Bhagwat, Nigel Dudley, and Stuart R. Harrop, "Religious Following in Biodiversity Hotspots: Challenges and Opportunities for Conservation and Development," *Conservation Letters* 4, no. 3 (2011): 234–40; and A.A. Bagader et. al., "Environmental Protection in Islam," El-Chirazi El-Sabbagh, M. As-Sayyid Al-Glayand and M.Y. Izzideen Samarra, *Environmental Protection in Islam* (Gland, Switzerland: IUCN Environmental Policy and Law Paper No. 20, 1994).
  10. Umbrella species is a nature conservation strategy by putting a wide range of species to protect, the rest of other species within its habitat will automatically be protected.
  11. Matthew Linkie et. al., "Evaluating Biodiversity Conservation around a Large Sumatran Protected Area," *Conservation Biology* 22, no. 3 (2008): 683–90; and Jatna Supriatna et. al., "Deforestation on the Indonesian Island of Sulawesi and the Loss of Primate Habitat," *Global Ecology and Conservation* 24 (2020).

role of animals in maintaining environmental balance, as well as the lack of knowledge regarding the prohibition of hunting legally protected animals. Public awareness is still lacking in understanding that the decline in wildlife populations and environmental damage can harm their own lives. Challenges occur when even the minimum knowledge required for the public is not taught by the law. Therefore, innovative and different ways are needed in tackling and stopping the illegal hunting and trade of wild animals.

A religious approach in convincing the grassroots communities is needed to improve practical ethics.<sup>12</sup> This method has been proven to be the most efficient historically and plays a vital role in providing a positive view of the imbalance caused by human behaviour. The role of religious leaders can be key to improving people's understanding of ethics and their respect towards the relationship between humans and nature, as well as their relationship with animals and their Creator. In relation to this, to uphold the ethics of all religions, a global ethics has been proposed based on religious principles that are commonly recognised by religious and non-religious communities.<sup>13</sup> This approach to biocultural values in efforts of conservation has the potential to last for thousands of years.

This study thus argues for the practical effectiveness of considering religious ethics as a faith-based approach to conservation. It also provides evidence that belief matters much for faith-based approach to conservation. Furthermore, this approach lends itself to objective measurement, as opposed to the theoretical-judicial model of secular ethics.<sup>14</sup>

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12. Fazlun Khalid, "Exploring Environmental Ethics in Islam—Insights from the Qur'an and the Practice of Prophet Muhammad," in *The Wiley Blackwell Companion to Religion and Ecology* (New Jersey: John Wiley & Sons Ltd, 2017), 275–281.
  13. T. Plieninger, et al., "Biocultural Conservation Systems in the Mediterranean Region: The Role of Values, Rules, and Knowledge," *Sustainability Science* 18 (2022): 823–838.
  14. Magfirah Dahlan-Taylor, "'Good' Food: Islamic Food Ethics beyond Religious Dietary Laws," *Critical Research on Religion* 3, no. 3 (2015): 250–65. This study aims to contribute to the remedy of the current

## Islamic Jurisprudence and Sustainability of Species in South East Asia

This article explores an 18th-century text, written by Shaykh Muḥammad Arshad al-Banjārī. More specifically, it discusses the chapter expositing the ethics of consumption of wild animals. It then studies the impact of the jurist's advice on the conservation of wildlife in the modern era. The work, entitled *Sabīl al-Muhtadīn li al-Tafaqquh fī Amr al-Dīn*,<sup>15</sup> was written at the request of Sultan TahmīduLlāh (r. 1700–1717), and is a work of fiqh and ethics. Written in the Malay language using the *Jāwī* script, the work was completed in 1799 CE/1195 Hijri and is widely known throughout Southeast Asia—particularly in the Philippines, Malaysia, Singapore, Thailand, Indonesia, Brunei, Cambodia, Vietnam, and Laos. This is because these areas still use Malay as one of the languages of instruction in conducting religious studies. The residents of the mentioned areas follow the Shāfi'ī school of law. Even some of the modern Muslim communities in Indonesia still refer to this work.

This article discusses how a spiritual approach through religion and human culture can be an alternative in influencing the attitude of communities as part of the efforts in preserving the conservation areas and prohibit illegal wildlife trade. The purpose of this article is to provide a review of the importance

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under-theorization of discourse on food ethics and politics from the perspective of the Islamic food tradition by proposing a formulation of an Islamic conception of food justice that extends the religious discourse on food beyond that of dietary laws. The conception of Islamic food justice that study propose makes explicit the connections between the religious, ethical, and political discourses on food. First, I argue that the similarity between the central question of the secular approach to food ethics (i.e. what the rational-ethical individual should eat.

15. Muhammad Arshad Al-Banjārī, *Kitab Sabīl al-Muhtadīn*, ed. Aswadi Syukur (Surabaya: Bina Ilmu, 1882). Jil. 1–2. This book is originally in *Jāwī* scripts and is still being used for studies in the *pesantren* and *majelis ta'lim* all over the archipelago, particularly in the Banjarese community, South Kalimantan, as well as Malay communities. The author found an active *ta'lim* studying *fiqh* in a Masjid in Terengganu, Malaysia in 2018.

of a nationwide religious and cultural approach in combination with local wisdom in conservation efforts. Both nationally and internationally, this approach can be shown to be useful as a stimulus in preserving conservation areas, especially the handling of illegal wildlife trade.

The environmental crisis is rooted in values, and religion has been the main source of values of any culture. Hence, the involvement of religion in thinking about the environment is a sensible way to rethink the relationship between humans and nature.<sup>16</sup> Buddhism, for instance, places more emphasis on interconnectedness. Thus, it creates a productive relationship between humans and nature. It is very effective in cultivating humility, compassion, and balance among its adherents so as to reduce the damage done to the environment.<sup>17</sup>

Currently, the concern for environmental problems locally and globally has never been fully addressed. Sponsel wrote:

Most secular approaches only deal with skin symptoms, compared to addressing issues that are at the root of the global crisis that are not seen as a whole. Therefore, the secular approach is inadequate because it largely ignores the fact that environmental crises are generally caused by spiritual and moral crises.<sup>18</sup>

Gardner expresses his opinion about the religious and cultural approach in conservation—that religion can bring hope and mobilise its followers to produce significant results. It can enlist the emotions and thoughts of its followers through the influence

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16. “Religion and Ecology,” *Oxford Bibliographies*, <https://www.oxfordbibliographies.com/display/document/obo-9780199830060/obo-9780199830060-0103.xml>, accessed on 13th April 2023.
  17. Mary Evelyn Tucker, and John A. Grim, “Introduction: The Emerging Alliance of World Religions and Ecology,” *Daedalus* 130, no. 4 (2001): 1–22.
  18. Leslie Sponsel, “Introduction to Religious Environmental Activism in Asia: Case Studies in Spiritual Ecology,” *Religious Environmental Activism in Asia Case Studies* (2020).



of strong religious leaders or figures to understand the scriptures, rituals, and symbols of each religion. All of this promises a much broader perspective on the environment compared to the secular approaches.<sup>19</sup>

Humans are always at the centre of all sources of environmental crises and threats to the sustainability of biodiversity. This is why Supriatna argues that the biodiversity conservation and environmental preservation are not merely biological and technical issues, but also a socio-cultural one.<sup>20</sup> The biological and technical approach, without a reframing of the society's epistemes, will actually aggravate the condition of environmental quality and biodiversity sustainability. Efforts to take a biological and technical approach will fail because of the unbalanced and dishonest relations among world governments. In addition, with the low level of public awareness and understanding, the high level of poverty, and rapid population growth, conservation as an effort will require a multidisciplinary approach aside from science.

We have once argued about the importance of a religious approach, especially in providing an easy understanding for the relatively uneducated mass in this matter.<sup>21</sup> In Islam, environmental conservation has been practised since the time of Prophet Muḥammad and the *Khulafā' al-Rāshidīn*, and is still being practised in the Middle Eastern and African countries. However, for Indonesia, the adoption of religious approaches to conservation has not been widely known yet. There are three concepts in Islam that can have a positive impact on conservation: *al-ḥimāyah*, *al-ḥarīm*, and *ihyā' al-mawāt*. Several conservationists have explored some lessons from the three concepts as potential

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19. Garry T. Gardner, *Religion's Contributions to Sustainable Development* (New York: WW Norton, 2006).

20. Jatna Supriatna, *Konservasi Biodiversitas: Teori Dan Praktik Di Indonesia* (Jakarta: Yayasan Pustaka Obor, 2018).

21. Fachruddin M. Mangunjaya, "Etika Agama Sebagai Platform Menggalang Kesadaran Konservasi" in *Metode Dan Kajian Sumber Daya Hayati Dan Lingkungan*, edited by Jatna Supriatna (Jakarta: Yayasan Obor Indonesia, 2021), 487–492.

framework in the conservation of nature.<sup>22</sup> This is why religious initiatives aim to inspire and encourage communities at the grassroots level.<sup>23</sup>

*Islam as an Approach to Conservation in Indonesia*

Islam is the religion of the majority of the Indonesian population. As such, an approach that adopts Islamic values can be very effective. Besides that, academicians also see Islam as the future of Indonesia because of its strength as a cultural identity and value, for it has cemented itself in the Indonesian psyche for hundreds of years.<sup>24</sup> On the other hand, the idea of conservation of wildlife in Indonesia is still new, being popularised only since the last few decades—national parks were only established in the early 1980s and conservation laws were only legislated in the 1990s.<sup>25</sup>

Prior to that, there were no official regulations in Indonesia other than the Dutch colonial laws on animal protection. The laws that were in force even prior to the Dutch laws were a product of the thought of al-Banjārī and other *fuqahā*’ of his time, which are still relevant today. *Fiqh* as canonised according to the works of al-Banjārī has contributed to the preservation of wild animals such as tigers, orangutans, and other animals that are currently still being protected. The regular discoveries of the continued existence of orangutans, for example, is attributed by researchers of primates who had embarked on their research in the 1970s to the Muslims’ practice of abstaining themselves

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22. Fachruddin Mangunjaya, “Aspek Syariah: Jalan Keluar Dari Krisis Ekologi.” *Ulumul Qur’ān* 8, no. 1 (1998): 1–11. Best practices are also conducted by Fachruddin Majeri Mangunjaya et. al., “Protecting Tigers with a Fatwa: Lesson Learn Faith Base Approach for Conservation,” *Asian Journal of Conservation Biology* 7, no. 1 (2018): 78–81.

23. Elizabeth Mcleod and Martin Palmer, “Why Conservation Needs Religion” *Coastal Management* 43, no. 3 (2015): 238–52

24. Bernard T. Adeney-Risakotta, *Living in a Sacred Cosmos: Indonesia and the Future of Islam* vol. 3 (New Haven: Yale University Press, 2021).

25. John MacKinnon, Kathy MacKinnon, Graham Child and Jim Thorsell, *Managing Protected Areas in the Tropics* (Switzerland: International Union for Conservation of Nature and Natural Resources, 1986).

from eating orangutan meat.<sup>26</sup> This abstinence, however, is not practised by the indigenous tribes of Kalimantan, among whom hunting and consuming primate meat are still a common practice.<sup>27</sup>

As claimed by some historians, Islam was brought to Indonesia in the beginning of the 13th century which later formed the basis of the Indonesian civilisation and culture—an aspect of which is the preservation of wildlife. The religion was initially presented to the courts of the rulers of the Malay kingdoms (later known as the sultanates). The rulers who embraced Islam then consulted the scholars and commissioned them to write works of *fiqh*. These works were then canonised and legislated as the law of the kingdoms, which then formed the basis of Islamic ethics as practised by the local Muslims until today.<sup>28</sup>

*The Influence of Fiqh on the Conservation of Endangered Species*

Shaykh Muḥammad Arshad Al-Banjārī was a *faqīh* from Kalimantan. He studied the Shāfiʿī school of law in Mecca for 30 years. His work, *Sabīl al-Muhtadin*, became an influential reference for *fiqh* throughout Southeast Asia. The work subscribes to the Shāfiʿī school of law, which is dominant in Indonesia and Southeast Asia—from Eastern Indonesia, to the Malay communities in Brunei and Sarawak, up to the Phillipines and the Malay Peninsula, to the Patani Region in Southern Thailand, Vietnam and Cambodia, from the time when the Muslim communities started to use the Malay language in transforming religious conversations.<sup>29</sup> Al-Banjārī's work, *Sabīl al-Muhtadin*, consists of 31 chapters, containing legal regulations and rulings regarding transactions (*muʿāmalah*), ritual worships (*ʿibādah*) involving purification, prayer, alms, fasting, and pilgrimage. The

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26. Birute M.F. Galdikas, *Adaptasi Orantungan Di Suaka Tanjung Puting, Kalimantan Tengah* (Jakarta: UI Press, 1984).

27. H. D. Rijksen & E. Meijaard, *Our Vanishing Relative: The Status of Wild Orang-Utans at the Close of the Twentieth Century* (Dordrecht: Kluwer Academic Publishers., 1999).

28. A. K. Reinhart, "Islamic Law as Islamic Ethics," *The Journal of Religious Ethics* 11, no. 2 (1983): 186–203.

29. *Ibid.*, xii.

chapter, *Kitāb al-Aṭʿimah* (the Book of Consumption), discusses food consumption, as well as permitted (*ḥalāl*) and forbidden (*ḥarām*) types of food. A passage of the chapter reads:

Knowing what is *ḥalāl* and what is *ḥarām* is obligatory because all of them are highly demanded in religion, which is closely related to the threat of harsh punishments for people who consume food or drink that is forbidden.<sup>30</sup>

The chapter also includes certain wild animals considered *ḥarām* for consumption. Ultimately, *fiqh* was read and studied extensively—its teachings were followed by the Muslim majority. As a result, it shaped their behaviour and consequently their abstinence from consuming unlawful animals. Hence, they only choose to hunt permitted wild animals.

The prohibition of wildlife consumption before al-Banjārī's work was very general, although it adhered to the principles contained in the commands and prohibitions of the Qurʾān, the Sunnah of the Prophet Muḥammad, and the opinions of the previous *fuqahāʾ*. However, in his writings, al-Banjārī added:

...as for all the animals for which there is no text (argument) in the Qurʾān and Ḥadīth regarding [its status as] *ḥalāl* and *ḥarām*—whether to kill them or it is forbidden to kill them—it alleviates doubt, to refer to what is taught by the Qurʾān and Ḥadīth.<sup>31</sup>

Al-Banjārī continued, referring to *Sūrat al-Māʾidah* (5): 4, that all animals that live only in water or can live on land but not for long are *ḥalāl* to be eaten—regardless of whether they are fish, or even if their shapes resemble animals that are forbidden on land such as dogs, pigs, and others. Hence, it is *ḥalāl* to be consumed, regardless of how it dies; unless if it is poisonous, such as the puffer fish, which is harmful to the health of the body and mind.<sup>32</sup> The imperative of avoiding that which causes harm

30. Al-Banjārī, *Kitāb Sabīl al-Muhtadīn*, 1121.

31. *Ibid.*, 1122.

32. *Ibid.*

to the human body in food consumption is a principle that is consensually agreed upon by scholars across all schools of law.<sup>33</sup>

Table 2, appended at the end of this article, describes the species that belong to the categories of *halāl* and *harām* food for Muslim consumption according to al-Banjārī.<sup>34</sup> In it, we compare the impact of modern regulation (Ministry of Environment and Forestry-MoEF-RI) and IUCN with the legal status of species of animals and wildlife for consumption according to fiqh as codified by al-Banjārī in *Sabīl al-Muhtadīn*. Based on this comparison, we found that this consumption regulation of all animals may have in effect prevented the animals from being hunted and becoming rare or extinct due to overconsumption. By identifying the status of the food category, we can understand that religious belief is indeed an important factor in the prevention of extinctions of wildlife species.

The total list that we made includes four important animal orders: particularly primates, carnivores, amphibians, and reptiles, covering about 1203 species in Indonesia. For example, apes and monkeys are categorised as belonging to the primate order. Therefore, all species in the order of primates are *harām*. Animals that are categorised as natural predators such as tigers are not allowed to be eaten according to the Shari'ah. Therefore, all carnivorous species are not allowed to be hunted. The other categories include the orders of amphibians and reptiles which can include thousands of species. Therefore, this *fiqhī* regulation is important in saving each species that belongs to its respective order from being hunted for food or other forms of consumption. The influence of the teachings of *fiqh* could also be extended as a protection to other global species, which number 18,390 in total, from the four orders: primates, carnivores, amphibia, and reptilia as they are important as a community of the planet as listed in Table 1.

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33. D. Nurdeng, "Lawful and Unlawful Foods in Islamic Law Focus on Islamic Medical and Ethical Aspects," *International Food Research Journal* 16, no. 4 (2009): 469–78.

34. Al-Banjari, *Sabīl al-Muhtadīn*, 1122.

Table 1 List of orders and species that are legally prohibited from consuming in the Islamic jurisprudence.

Order	Number of Species		Comments
	Indonesia	Global	
Primate <sup>35</sup>	59	504	All species such as orangutans, proboscis monkeys, macaques, [silver] leaf monkeys, and gibbons are still abundant in Indonesia's forests particularly in the Muslim areas.
Carnivore <sup>36</sup>	36	290	All wild cats are endangered. However, the ones habitating the Muslim areas are not hunted for consumption. This can also be applied globally to the other 268 species of carnivores.
Reptile <sup>37</sup>	723 <sup>38</sup>	10,196	All reptile species, such as crocodiles, snakes, lizards etc are prohibited from consuming, except for desert lizard ( <i>dabb</i> ).
Amphibia <sup>39</sup>	385 <sup>40</sup>	7,400	All species included in this order are turtles, frogs, salamanders, etc.
Total	1203	18,390	

*Fiqh* regulates the ethics and lifestyle of each Muslim individual and family. It can therefore be said that the application of the 18th century regulation is an important part of the

35. Supriatna, J. *Field Guide to the Primates of Indonesia*, p 1–201.
36. Minin, et al. “Global Priorities for National Carnivore Conservation under Land Use Change.” *Scientific Reports* 6, no. April (2016): 1–9
37. Neil Cox, et al., A Global Reptile Assesment Highlights Shared Conservation Need of Tetrapods.” *Nature* 605, No 7909 (2022): 285–90
38. Lembaga Ilmu Pengetahuan Indonesia. *Kekinian Keanekaragaman Hayati Indonesia 2014*. (Bogor: Lembaga Ilmu Pengetahuan Indonesia (LIPI), 2014), 58.
39. Oliveira et al., “AmphiBIO, a Global Database for Amphibian Ecological Traits,” *Scientific Data* 4, no, 170123 (2017): 2.
40. Lembaga Ilmu Pengetahuan Indonesia. *Kekinian Keanekaragaman*, 58.

solution for the sustainability of nature and wildlife until today. In addition, it is acknowledged that al-Banjārī's *Sabīl al-Muhtadīn* is more detailed in its description of several points than the work written by Nūr al-Dīn al-Rānirī (d. 1658 C.E.) who flourished in the Aceh Sultanate. Nevertheless, both works by al-Banjārī and al-Rānirī are examples of the richness of the Islamic Jurisprudence and its indigenous assimilation in Southeast Asia.<sup>41</sup>

The assimilation of *fiqh* has proven to be greatly effective for the existence of many protected species in the world. Indeed, hunting is still an ongoing practice as Islam allows it. Still, this is only insofar the animals hunted are lawful animals and the methods of hunting conform to the parameters of the Sharī'ah.<sup>42</sup> However, Islam has always treated animals with respect—even at times as loyal companions—as noted in history. The Islamic civilisations have cared for animals and provided them with various forms of veterinary services.<sup>43</sup> Evidently, then, the heritage of Islamic teachings has positively impacted the protection of various predatory species such as tigers and predatory birds, reptiles, amphibians, and primates—all of which are prohibited in Islam from consuming.<sup>44</sup> In addition to the practical basis of preventing the illegal activity of poaching, Islam also teaches the practice of protected areas called al-ḥimāyah, where a trustworthy person is tasked with its protection.<sup>45</sup>

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41. R. M. Feener, *Islamic Jurisprudence and Adat in Southeast Asia*, in: *Southeast Asian Islam, Indigenized Theology and Jurisprudence* (Abu Dhabi: The World Muslim Communities Council, n. d.), 59–86.
  42. S. Sabiq, *Fiqh Sunnah*, trans. Nor Hasanudin (Jakarta Pusat: Penerbit Pundi Aksera, n.d.), jil. 4, 287–292.
  43. H. A. Shehada, *Mamluks and Animals: Veterinary Medicine in Medieval Islam* (Leiden: Brill, 2012), 6.
  44. Fachruddin M. Mangunjaya & Gugah Praharawati, “Fatwas on Boosting Environmental Conservation in Indonesia,” *Religions* 10, no. 10 (2019): 1–14.
  45. A.A. Bagader, A.T. El-Chirazi El-Sabbagh, M. As-Sayyid Al-Glayand and M.Y. Izzī-Deen Samarraī, “Environmental Protection in Islam” (Gland, Switzerland: IUCN Environmental Policy and Law Paper No. 20, 1994); Othman A. Llewellyn, “The Basis for a Discipline of Islamic Environmental Law” in *Islam and Ecology*, edited by Richard Foltz et al. (Massachusetts: Harvard University Press, 2003).

Thus, the question arises as to why hunting and wildlife trades continue to be practised rampantly to this day. Two reasons can be identified: firstly, ignorance or misunderstanding due to lack of socialisation of the idea of conservation to the community; secondly, the deliberate violation of conservation efforts due principally to the unimportance attached to them by the masses. To overcome these, a movement for conservation for sustainability needs to be effectively nurtured.

### **An Islamic View: The *Fatwā* of the Majelis Ulama Indonesia**

In order to tackle the current challenges against the conservation of endangered wildlife, particularly in Indonesia, the *Majlis Ulama Indonesia* (MUI) released *fatwā* number 4/2014, declaring that,

Killing, hurting, persecuting, hunting, and/or taking actions that threaten the endangered animals is (sic.) *ḥarām* unless there are *sharʿī* reasons, such as protecting and saving human lives. And hunting and/or illegal trade of endangered animals are *ḥarām*.<sup>46</sup>

On the basis of the *fatwā* above, we argue and propose an interpretation as follows: if a species is *ḥarām* as food, then it is also *ḥarām* to hunt, to accept cash for its purchase, or even to help in hunting and marketing it. A legal maxim (*al-qāʿidah al-fiqhiyyah*) states: “That which leads to something unlawful is also unlawful (*mā adā ilā al-ḥarām fa huwa al-ḥarām*).”<sup>47</sup> Thus, if something is ruled as *ḥarām* according to the Shariʿah, then any steps taken against the ruling and towards violating it are unlawful and sinful acts which are punishable. Therefore, if a

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46. Fatwa MUI No 4/2014, “The Protection of Endangered Species for the Balance of Ecosystem. The Second: Legal Decision no 6–7” (accessed 24 December, 2023), available at: <http://ppi.unas.ac.id/wp-content/uploads/2014/12/Fatwa-MUI-No-4-Indonesia-FINAL-FINAL.pdf>

47. Discussions with Ustadz Ahmad Sudirman Abbas, 2018 (Dr. Abbas is the author of *Qawaid Fiqhiyah in Fiqh Perspective* (Jakarta: Pedoman Ilmu Jaya, 2004).



Muslim aids in committing that which is *ḥarām*—in this case, sabotaging conservation efforts—even if he only acts as a guide to the hunting of the forbidden wild animals, then his very act is *ḥarām* and sinful. It violates the law and is therefore punishable.<sup>48</sup>

It is in this regard that the MUI issued Fatwa no. 4/2014 concerning the Protection of Animals to Maintain Ecosystem Balance on 22nd January 2014. This *fatwā* pertains to the prohibition of the hunting and trading of wild animals, as well as burdening animals beyond their natural capacities. According to MUI, seven principles are recommended as legal provisions on owners, custodians, and the general public (government, legislature, local government, businesses, religious leaders, and community). The seven principles are as follows:<sup>49</sup>

1. Every living thing has the right to carry on its life and be utilised for the benefit of human beings.
2. Treating endangered animals with compassion (*iḥsān*) by protecting and preserving them in order to ensure their survival is obligatory.
3. The protection and preservation of endangered species as referred to in number 2, among others, are achieved by:
  - i. ensuring its basic needs, such as food, shelter, and breeding needs;
  - ii. not imposing loads that are beyond its capacity;
  - iii. not gathering in the presence of other animals that endanger it;
  - iv. maintaining the integrity of its habitat;
  - v. preventing illegal hunting and trade;
  - vi. preventing conflict with humans;
  - vii. protecting animal welfare.

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48. F.M. Mangunjaya, *Konservasi Alam dalam Islam* (Jakarta: Yayasan Obor Indonesia, 2019), 171–172.

49. Majelis Ulama Indonesia, *The Protection of Endangered Species*.

4. Rare animals may be used when there are provisions from the Shari'ah and the provisions from the law.
5. Utilisation of an endangered species as referred to in number 4 is regulated by, among others:
  - i. maintaining the balance of the ecosystem;
  - ii. limited to ecotourism, education, and research purposes;
  - iii. using it to keep the environment safe;
  - iv. cultivating it in accordance with the provisions of the legislation.
6. Killing, hurting, persecuting, hunting, and/or taking actions that threaten the survival of endangered animals is unlawful, unless there are arguable shar'ī reasons, such as protecting and saving human lives.
7. The hunting and/or illegal trade of endangered animals are *ḥarām*.

Therefore, it can be observed that the verdicts raised in the *fatwā* clearly depict the view of the Shari'ah on poaching and animal trafficking, which brings about major positive impacts on the existence of wildlife animals which exist today. It can be concluded that the *fatwā* by MUI shall significantly enhance the status of the Shari'ah law and greatly clarify the ethical basis of consumption for Muslims in general.

## **Conclusion**

Indeed, changing our consumption behaviour is imperative and is key to a more sustainable life. In this regard, *Sabīl al-Muhtadīn* by Shaykh Muḥammad Arshad al-Banjārī, proves an important work in Islamic jurisprudence that has been instrumental in protecting many species which remain unendangered today from hunting and consumption by humans. Due to the success of 627 species being protected in Indonesia, the Islamic ethics of consumption of wildlife animals can be extended globally to protect 18,390 species throughout the globe.

Such ethics is indeed a significant civilisational capital and wisdom for Muslims to continue learning and nurturing, in order to protect species that are crucial for a balanced life on earth. Also, a ban on hunting can lead to the increase of population numbers and maintain existing populations. This positive condition can then be strengthened by encouraging and investing in environmental awareness through religion. Environmental degradation and species extinction may be prevented if the changes are carried out based on scientifically acquired knowledge together with consultations with religious experts. This article has shown the importance of religious or faith-based approaches for the conservation of nature, as well as the integration of scientific knowledge with religious ethics.

Impacts of modern regulation (Ministry of Environment and Forestry-MoEF) and IUCN have been compared with that of the categorisation of lawful and unlawful wildlife animals for consumption according to the Sharī'ah as codified by Shaykh Muḥammad Arshad al-Banjārī in *Sabīl al-Muhtadīn*. For the Fiqh regulations to impact even broader categories and aid recognition, local names of each species are thus provided in Column 2.

Table 2 Water-inhabiting species and amphibians

No.	Local Name	English Name	Fqgh		Reason for being <i>Habitat</i> or <i>Habitat</i>	Name in the Regulations of Ministry of Environment and Forestry RI (KLHK, no.20/MENLHK/SETJEN/KUM.1/6/2018	The IUCN Redlist of Endangered Species
			<i>Habitat</i>	<i>Habitat</i>			
1	Kerang, Tiram, Indung Mutiara	Mussel, Oyster, Pearl Meat	/	<i>Habitat</i>	Water-only habitat, non-terrestrial, non-poisonous	<i>Anadara gimosa</i> (kerang), <i>Crassostrea gigas</i> (tiram), <i>Pinchada maxirn</i> (tiram mutiara);	Some listed as protected due to rarity and endangered.
2	Penyu	Sea Turtle	/	<i>Habitat</i>	Habitant of both water and land (Amphibious)	Six species of sea turtles are protected by the government of Indonesia. <i>Caretta caretta</i> (penyu bromo), <i>Chelonia mydas</i> (penyu hijau), <i>Eretmochelys imbricata</i> (penyu sisik), <i>Lepidochelys olivacea</i> (penyu le kang), <i>Natur depressus</i> (penyu pipin) and <i>Dermochelys coriata</i> (penyu belimbing).	Vulnerable (VU) decreasing in population since 2013.
3	Bidawang Labi-Labi	Freshwater Turtle, Fig Mouth Turtle	/	<i>Habitat</i>	Habitant of both water and land (Amphibious)	<i>Carettochelys insculpta</i> , <i>Chelonia nonguinae</i>	Endangered species
4	Batagur (Bintu)	Freshwater Turtle	/	<i>Habitat</i>	Habitant of both water and land (Amphibious)	<i>Batagur affinis</i>	CR, since 2019, population trend is decreasing

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5	Kura-Kura Darat	Tortoise	/	Habitant of both water and land (Amphibious)	<i>Chelodina mcortii</i> (kura-kura rote)	LC, protected by Indonesian laws
6	Belangkas/ Mimi	Horsehoe Crab	/	Habitant of both water and land (Amphibious)	<i>Carcinoscorpius rotundicauda</i>	Protected by Indonesian laws
7	Keeping, Keeping Bakau	Mangrove Crab	/	Habitant of both water and land (Amphibious)	<i>Callinectes sapidus</i> <i>Scilla, sp</i>	Unknown
8	Rajungan	Crab	/	Water habitant	<i>Portunus pelagicus</i>	Unknown
9	Ular Air	Water Snake	/	Water habitant	<i>Xenochrophis</i>	Unknown
10	Bekicot	Snail	/	Land habitant	<i>Achatina fulica</i>	Common
11	Gondang, Lihng/Turut	Water Snail	/	Able to stay alive on land for an extended period.	<i>Pila ampullacea</i>	Common
12	Belut	Eel	/	Water habitant	<i>Monopterus albus</i>	Common in the sea and paddy fields
13	Siput	Snail	/	10 out of 13 that inhabit in water are <i>haram</i> . If it lives in water and is not able to survive on land for long, it is <i>halal</i> . Otherwise, it is <i>haram</i> .	<i>Helix pomatia</i>	

Terrestrial Species

No.	Local Name	English Name	Figh		Reason(s) for being <i>Halal</i> or <i>Haram</i>	Regulations of Ministry of Environment and Forestry RI (KLHK) No.20/ MEN.LHK/SETJEN/ KUM.1/6/2018	IUCN Redlist
			<i>Halal</i>	<i>Haram</i>			
14	Unra	Camel	/		Land habitant	Camelus, N/A	Camelus ferus status: CR in 2008, least population in Mongolia and Xinjiang.
15	Sapi	Cow	/		Land habitant	<i>Bovidae</i> , Not protected (domesticated)	Common and domesticated
16	Banteng	Wild Cow	/		Land habitant	<i>Bos javanicus</i>	EN Since 2016, the trend of population is decreasing.
17	Kerbau Peliharaan	Domestic Carabao	/		Land habitant	<i>Bubalus bubalis</i> , Not protected (domesticated)	Domesticated
18	Kambing, including Wild Goat	Goat, Wild Goat	/		Land habitant	<i>Capra aegagrus hirtus</i>	Domesticated
19	Kuda	Horse	/		Land habitant	<i>Equus caballus</i>	Domesticated

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20	Rusa	Deer	/		Land habitant	Indonesia has six species of deer: Rusa Sambar ( <i>Cervus unicornis</i> ), Rusa Timor ( <i>Cervus timorensis</i> ), Rusa Bawean ( <i>Axis habili</i> ), Kijang Kuning ( <i>Muntiacus alfredricksi</i> ), and kijang ( <i>Muntiacus muntjak</i> )	VU, population decreased since 2015
21	Zebra	Zebra	/		Land habitant	<i>Equus zebra</i> (zebra gunung)	VU, population increasing since 2019
22	Keludai	Donkey		+ (1)	Land habitant	<i>Equus asinus</i>	Domesticated
23	Dabb/Biwak gunung	Desert Lizard	/		Land habitant, as prey animal. Possesses harmless fangs. This species can change gender every year. Found in Arab Lands.	<i>Varamia</i> , <i>Uromastyx aegyptia</i> (desert lizard).	VU, population decreasing since 2012. In Indonesia, there are 13 species of protected lizards, including Komodo dragons.
24	Kelinci	Rabbit	/			<i>Lepus Carpuanus</i>	
25	Tsalab/Teledu	Malay Badger	/		Land habitant	<i>Mustelidae</i>	NT (Nearly Threatened) in 2023, but population has increased
26	Yarbu	Jerboa	/			<i>Gerbillus</i>	
27	Landak	Porcupine	/			<i>Hystrix javanica leporidae</i> (landak jawa)	

28	Sanjah	Squirrel	/				<i>Callosciurus notatus</i> (bajing)	
29	Ayam Kalkun	Calam	/				<i>Leptostaphus melanotis</i>	VU, 2011, decreasing
30	Harimau	Tiger	/			Possesses strong jaws (predator)	<i>Panthera tigris ssp</i>	CR, 2008, decreasing
31	Macan Pohon	Clouded Leopard	/				<i>Neofelis diardi</i> (macan dahan)	EN, 2016, decreasing
32	Beruang		/				<i>Helarctos malayanus</i> (Sun bear)	VU, 2017, decreasing
33	Gajah	Elephant	/				<i>Elephas maximus ssp Sumatranus</i>	CR, 2011, decreasing
34	Macan Tutul	Panthera	/			Possesses strong jaws (predator)	<i>Panthera pardus melas</i>	CR, 2010, decreasing
35	Ajing	Dog	/			Possesses strong jaws (predator)	<i>Canis lupus</i>	
36	Klinzir	Pig	/				<i>Sus scrofa</i> , <i>Sus barbatus</i> (Babi berjantung)	VU, 2017, decreasing



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37	Kera, Monyet	Primate, Ape, Monkey		/		Indonesia has 23 species of primates; five species of Macaques (monyet); 10 species of leafe monkeys ( <i>Presbytis</i> or litunggi; one <i>Nasalis</i> sp (bekantan); three species of ape (Bongo or orangutan); seven <i>Hylobates</i> (Owa) <i>Macaca maura</i> : EN; <i>Macaca nigra</i> , <i>macaca heugensis</i> : CR; <i>Nasalis larvatus</i> : EN; <i>Pesbytis comata</i> , <i>Pesbytis melalophos</i> : EN; <i>Pesbytis potenziani</i> , <i>Simias concolor</i> , <i>Trachypithecus cristatus</i> <i>ceroidae</i> : CR, all Pongae: CR, all species of <i>Hylobates</i> : EN	CR, EN
38	Badak	Rhinoceros		/		Indonesia has two protected species of <i>Dicerorhinus sumatrensis</i> (badak sumat era) and <i>Rhinoceros sondaicus</i> (badak jawa)	<i>Dicerorhinus sumatrensis</i> (Sumatran rhinoceros); <i>Rhinoceros sondaicus</i> (badak jawa); CR
39	Kucing Piaran	Domestic Cat		/		<i>Felis catus</i>	Domesticated
40	Kucing Hutan	Wild cat		/		Six species of wild cats are protected in Indonesia. Two species, <i>Catopuma badia</i> (kucing merah) and <i>Prionailurus planiceps</i> (kucing tandang), are stated as EN	EN; 2015, population has declined

41	Berang-Berang	Otter		/		<i>Lutra lutra</i> (berang pantai), <i>Lutra sumatrana</i> (berang-berang gunung), <i>Lutrogale perspicillata</i> (berang wregul)	<i>Lutra sumatrana</i> (berang-berang gunung) EN, 2015, population has declined
42	Musang	Civet		/		Two species are protected: <i>Gynogale benettii</i> (water civet) and Sulawesian civet	<i>Gynogale benettii</i> (musang air); EN
43	Tupai	Squirrel		/		<i>Scandentia</i>	
44	Tenggiling	Pangolin		/		<i>Manis javanica</i>	CR, 2019, has declined
45	Karak	Frog		/		<i>Lepidophryne crentata</i>	CR, 2019, has declined
46	Kunkang	Slow Loris		/		<i>Foliifera</i> (ordo)	
47	Cicak	House Lizard		/		<i>Gekkonidae</i> (fam)	
48	Tokak	Gecko		/		<i>Gekko gekko</i>	LC, and VU 2023;
49	Bengkarung (Kadal)	Lizard		/		<i>Lacertilia</i>	
50	Ular	Snake		/		<i>Serpentes</i>	LC
51	Kalajengking	Scorpion		/		<i>Scorpiones</i>	

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52	Burung Gagak Berbelang	Crow	/	<i>Harām</i> because it should be killed upon engagement.*	<i>Coccyidae</i> , consist of eight protected species.	<i>Corvus florensis</i> : EN <i>Corvus unicolor</i> : CR and
53	Tikus	Rat	/	<i>Harām</i> because it should be killed upon engagement.*	<i>Muridae</i>	
54	Lipan	Millipede	/	<i>Harām</i> because it should be killed upon engagement.*	<i>Scolopendra</i>	
55	Kelawar	Bat	/		<i>Neophertix fasti</i> (codot), <i>Pteropus pumilus</i> (kalong taland), <i>Acroton humilis</i> (codot talant)	EN in 2016, the population trend has decreased.
56	Kalong Keluang	Fruit-bat	/	Pollinator	<i>Pteropus sp</i>	EN, VU, CR. EX; some species are increasing while others are decreasing.
57	Cacing	Worm	/	Decomposer	<i>Lumbricina sp</i>	
58	Kesunruk	Mole cricket	/	Decomposer	<i>Gryllotalpidae</i>	
59	Jangkrik	Cricket	/	Insect/ decomposer	<i>Gryllidae</i>	
60	Semut	Ants	/		<i>Formicidae</i>	
61	Kecoa	Cockroach	/		<i>Blattodea</i>	
62	Lebah dan Ulat Lebah	Bee, Bee Larva	/	Pollinator	<i>Anthophila</i>	

63	Kumbang	Bug		/	Decomposer	<i>Coleoptera</i> <i>Arachnid</i>	
64	Labah-Labah	Spider		/	Pest control		
65	Lalat	Flie		/	Pest	<i>Diptera</i>	
66	Burung Rajawali	Large Eagle		/	Predatory bird (which hunts and eats with claws)	<i>Aquila audax</i> (rajawali ekor bag), <i>Aquila gurneyi</i> (rajawali kuskus), <i>Clanga clanga</i> (rajawali toto), <i>Harpopsis newoguniae</i> (rajawali)	NT/Near Threatened, VU, and for <i>Clanga clanga</i> (EN)
67	Helang	Small Eagle		/	Predatory bird (which hunts and eats with claws)	58 species <i>Accipiter</i> that are protected	<i>Nisaetus bartelsi</i> (elang jawa); EN and <i>Nisaetus floris</i> (helang flores); CR
68	Kakakua	Cockatoo		/	Predatory bird (which hunts and eats with claws)	Seven species of <i>Cacatuidae</i> , <i>cacatua alba</i> (kakakua putih), <i>Cacatua galerita</i> (kakakua koki), <i>Cacatua goffiniana</i> (kakakua tambar), <i>Cacatua moluccensis</i> (kakakua maluku), <i>Cacatua sanguinea</i> (kakakua rawa), <i>Cacatua sulphurea</i> (jambul kuning), <i>Probosciger aterrimus</i> (kakakua raja)	<i>Yellow-crested Cockatoo</i> (kakakua jambul kuning); CR.

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69	Serindit	Parakeet / Hangang Parrot		/	Predatory bird (which hunts and eats with claws)	Nine species are protected: <i>Loriculus amabilis</i> (serindit maluku), <i>Loriculus aurantiifrons</i> (serindit papua), <i>Loriculus calumene</i> (serindit sangihe), <i>Loriculus exilis</i> (serindit panah merah), <i>Loriculus floccatus</i> (serindit flores), <i>Loriculus galgulus</i> (serindit melayu), <i>Loriculus pusillus</i> (serindit jawa), <i>Loriculus sclateri</i> (serindit sula), and <i>Loriculus stigmatus</i> (serindit sulawesi).	IUCN states only serindit flores ( <i>Loriculus floccatus</i> ) as VU
70	Burung Dandang	Cormorant	/			<i>Phalacrocoracidae</i>	This species helps fishermen to catch fish
71	Bangau	Stork	/			Five species are protected: <i>Ciconia episcopus</i> (bangau sandang lawe), <i>Ciconia stormi</i> (bangau storm), <i>Ephippiorhynchus asiaticus</i> (bangau leher hitam), <i>Lephiphtes javanicus</i> (bangau tongtong), <i>Mycteria cinerea</i> (bangau bluwok)	Storm stork and <i>Mycteria</i> : EN, bangau bluwok: EN, others are VU, NT
72	Burung Beo	Hill Myna	/			Three species are protected: <i>Gracula religiosa</i> (Beo emas), <i>Gracula robusta</i> (Beo nias), <i>Gracula venerata</i> (Beo nusatenggara)	<i>Gracula robusta</i> : CR, and <i>Gracula venerata</i> EN
73	Burung Merak	Peacock	/			<i>Pavo muticus</i> (merak hijau)	EN

74	Burung Hantu	Owl		/		Indonesia has 12 species of owl: two species are EN: <i>Otus alfredi</i> (celepuik flores) and <i>Otus stoenens</i> (celepuik siau) CR	EN and CR
75	Burung Layang-Layang	Swiftlet		/		<i>Hirundinidae</i>	
76	Burung Pelatuk	Woodpecker		/		Two species are protected: <i>Mulleripicus fulvus</i> (pelatuk kelabu sulawesi), <i>M. Pulverulentus</i> (Pelatuk kelabu besar)	VU
77	Burung Sawari	Common Flameback	/			<i>Dinopium javanense</i>	LC, decreasing
78	Burung Merpati	Dove	/			<i>Columbidae</i>	Common
79	Burung Pipit	Sparrow	/			<i>Estriidae, Lomthura vana</i> (bondol arfak)	VU
80	Burung Gelatik	Wren	/			<i>Padda, Lomthura oryzivora</i> (Gelatik jawa)	EN, 2018, rare
81	Ayam Kampung	Domestic Chicken	/			<i>Gallus gallus domesticus</i>	Common Chicken
82	Itik	Common Duck	/			<i>Anatidae</i>	Common
83	Angsa	Swan	/			<i>Cygnus</i>	Common
84	Bellbis	Grouse	/			<i>Dendrocygna sp</i>	
85	Burung Gagak	Crow		/		<i>Corvus corax</i>	

\*The acronyms used are according to IUCN: EX=Extinct, CR=Critical, EN=Endangered, LC=Least Concerned; and VU=Vulnerable.

**References**

- Adeney-Risakotta, Bernard T. *Living in a Sacred Cosmos: Indonesia and the Future of Islam (Southeast Asia Studies)* New Haven: Yale University Press, 2021.
- Ajzen, Icek. "The Theory of Planned Behaviour." *Organisational Behaviour and Human Decision Processes* 50, no. 2 (1991): 179–211.
- Bagader A. A, A.T. El-Chirazi El-Sabbagh, M. As-Sayyid Al-Glayand and M.Y. Izzi-Deen Samarrai. *Environmental Protection in Islam*. Gland Switzerland: IUCN Environmental Policy and Law Paper No. 20, 1994.
- Al-Banjārī, Muḥammad Arshad. *Kitab Sabīl al-Muhtadin*. Surabaya: Bina Ilmu, 1882.
- Bhagwat, Shonil A., Nigel Dudley, and Stuart R. Harrop. "Religious Following in Biodiversity Hotspots: Challenges and Opportunities for Conservation and Development." *Conservation Letters* 4, no. 3.
- Cox, Neil, et. al. "A Global Reptile Assessment Highlights Shared Conservation Needs of Tetrapods." *Nature* 605, no. 7909 (2022): 285–90.
- Dahlan-Taylor, Magfirah. "'Good' Food: Islamic Food Ethics beyond Religious Dietary Laws." *Critical Research on Religion* 3, no. 3 (2015): 250–65.
- Gade, Anna M. "Islamic Law and the Environment in Indonesia: Fatwa and Dawa." *Worldviews: Environment, Culture, Religion* 19, no. 2 (2015): 161–83.
- Galdikas, Birute Mariya Filomena. *Adaptasi Orangutan: Di Suaka Tanjung Puting, Kalimantan Tengah*. Jakarta: UI Press, 1984.
- Gardner, Garry T. *Religion's Contributions to Sustainable Development*. New York: WW Norton, 2006.
- Grim, John, Russell Powell, Matthew T. Riley, Tara C. Trapani, and Mary Evelyn Tucker. *Religion and Ecology*. New York: Oxford University Press, 2013.

- Feener, R. M. “Islamic Jurisprudence and Adat in Southeast Asia” in *Southeast Asian Islam, Indigenized Theology and Jurisprudence*. Abu Dhabi: The World Muslim Communities Council., n.d. p 59–86.
- IPBES. “Summary for Policymakers of the Global Assessment Report on Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services.” *Population and Development Review*. 45 (2019).
- Khalid, Fazlun. (ed.). “Exploring Environmental Ethics in Islam: Insights from the Qur’an and the Practice of Prophet Muhammad.” In *The Wiley Blackwell Companion to Religion and Ecology*. Oxford: Wiley Blackwell, 2017.
- Kolbert, Elizabeth. *The Sixth Extinction: An Unnatural History*. New York: Picador, 2015.
- Linkie, Matthew, Robert J. Smith, Yu Zhu, Deborah J. Martyr, Beth Suedmeyer, Joko Pramono, and Nigel Leader-Williams. “Evaluating Biodiversity Conservation around a Large Sumatran Protected Area.” *Conservation Biology* 22, no. 3 (2008): 683–90.
- Lembaga Ilmu Pengetahuan Indonesia. *Kekinian Keanekaragaman Hayati Indonesia 2014*. Bogor: Lembaga Ilmu Pengetahuan Indonesia (LIPI), 2014.
- Llewellyn, Othman A. “The Basis for a Discipline of Islamic Environmental Law.” In *Islam and Ecology*, edited by Richard C. Foltz et al. Massachusetts: Harvard University Press, 2003.
- MacKinnon, John, Kathy MacKinnon, Graham Child, and Jim Thorsell, *Managing Protected Areas in the Tropics*. Gland: International Union for Nature Conservation 1986.
- Mangunjaya, Fachruddin, M., and J. Elizabeth McKay. “Reviving an Islamic Approach for Environmental Conservation in Indonesia.” *Worldviews: Environment, Culture, Religion* 16, no. 3 (2012).
- Mangunjaya, Fachruddin. M. “Aspek Syariah: Jalan Keluar Dari Krisis Ekologi.” *Ullumul Qur’an* 8, no. 1 (1998): 1–11.



- \_\_\_\_\_. *Konservasi Alam Dalam Islam*. Jakarta: Yayasan Obor Indonesia, 2019.
- \_\_\_\_\_. “Etika Agama Sebagai Platform Menggalang Kesadaran Konservasi.” In *Metode Dan Kajian Sumber Daya Hayati Dan Lingkungan*. Edited by Jatna Supriatna. Jakarta: Yayasan Obor Indonesia, 2021. 487–92.
- \_\_\_\_\_. Chantal Elkin, Gugah Praharawati, Imran S.L. Tobing, and Yeremiah R. Tjamin. “Protecting Tigers with a Fatwa: Lesson Learn Faith Base Approach for Conservation.” *Asian Journal of Conservation Biology* 7, no. 1 (2018): 78–81.
- \_\_\_\_\_. Gugah Praharawati. “Fatwas on Boosting Environmental Conservation in Indonesia.” *Religions* 10, no. 10 (2019): 1–14.
- McLeod, Elizabeth, and Martin Palmer. “Why Conservation Needs Religion.” *Coastal Management* 43, no. 3 (2015): 238–52.
- Minin, Enrico Di, Rob Slotow, Luke T.B. Hunter, Federico Montesino Pouzols, Tuuli Toivonen, Peter H. Verburg, Nigel Leader-Williams, Lisanne Petracca, and Atte Moilanen. “Global Priorities for National Carnivore Conservation under Land Use Change.” *Scientific Reports* (2016): 1–9.
- Nurdeng, D. “Lawful and Unlawful Foods in Islamic Law Focus on Islamic Medical and Ethical Aspects.” *International Food Research Journal* 16, no. 4 (2009): 469–78.
- Oliveira, Brunno Freire, Vinícius Avelar São-Pedro, Georgina Santos-Barrera, Caterina Penone, and Gabriel C. Costa. “AmphiBIO, a Global Database for Amphibian Ecological Traits.” *Scientific Data* 4 (2017).
- Park, Toby, “*Behaviour Change for Nature: A Behavioural Toolkit for Practitioners*. Arington: Centre for Behaviour and the Environment, 2019. Rules, and Knowledge.” Sustainability Science, 2022.
- Pörtner, H.O., et. al.,. *Scientific Outcome of the IPBES-IPCC Co-Sponsored Workshop on Biodiversity and Climate Change*. Bonn: IPBES-IPCC. 2021.
- Praharawati, Gugah, Fachruddin, M. Mangunjaya, Hendra

- Maujana Saragih, Aos Yuli Firdaus, Taufik Mei Mulyana, Fauziah Ilmi, Muhammad Zulham, Haris Gunawan, Suwigya Utama, and Ernawati Sinaga. "A Model of Religious Moral Approach for Peatland Ecosystem Restoration in Indonesia." *Jurnal Manajemen Hutan Tropika* 27, no. 1 (2021): 132–42.
- Reinhart, A. K. "Islamic Law as Islamic Ethics." *The Journal of Religious Ethics* 11, no. 2 (1983): 186–203.
- Rijksen, H. D. & E. Meijaard. *Our Vanishing Relative: The Status of Wild Orang-Utans at the Close of the Twentieth Century*. Dordrecht: Kluwer Academic Publishers, 1999.
- Sabiq, S. *Fiqh Sunnah*. Jakarta Pusat: Penerbit Pundi Aksera, n.d.
- Shehada, H. A. *Mamluks and Animals: Veterinary Medicine in Medieval Islam*. Leiden: Brill, 2012.
- Sponsel, Leslie. "Introduction to Religious Environmental Activism in Asia : Case Studies in Spiritual Ecology." In *Religious Environmental Activism in Asia Case Studies*. Basel: MDPI, 2020.
- Supriatna, Jatna. *Field Guide to the Primates of Indonesia*. Singapore: Springer International Publishing, 2022.
- \_\_\_\_\_. *Konservasi Biodiversitas: Teori Dan Praktik Di Indonesia*. Jakarta: Yayasan Pustaka Obor, 2018.
- Supriatna, Jatna, Myron Shekelle, Habiburrahman A H Fuad, Nurul L Winarni, Asri A Dwiyahreni, Muhammad Farid, Sri Mariati, Chris Margules, Bimo Prakoso, and Zuliyanto Zakaria. "Deforestation on the Indonesian Island of Sulawesi and the Loss of Primate Habitat." *Global Ecology and Conservation* 24 (2020).
- Tucker, Mary Evelyn, and John A. Grim. "Introduction: The Emerging Alliance of World Religions and Ecology." *Daedalus* 130, no. 4 (2001): 1–22.