

Wildlife Conservation in Pakistan: Legislation, Human Impact, and Islamic Environmental Ethics

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ABSTRACT:

Pakistan's rich biodiversity is under serious threat as socio-economic pressures, weak enforcement and human-wildlife conflicts have led to escalating wildlife law violations. This paper assesses the effectiveness of Pakistan's provincial and national wildlife laws in the face of persistent violations by local communities and well-organized poaching groups. The root causes of hunting, habitat encroachment, and illegal trade are analyzed in this paper using qualitative desk-research methodology and data analysis between 2015 and 2026. The findings show that although comprehensive legal frameworks exist on paper, their implementation is impeded by corruption, lack of resources and institutional gaps. Moreover, non-compliance is compounded by the alienation of indigenous communities from conservation policies.

The study finds that the future of wildlife in Pakistan is in moving from a purely punitive legal approach to an integrated community-based conservation model backed by rigorous judicial reforms.

Keywords: Wildlife Conservation, Pakistan Wildlife Laws, Poaching, Anthropogenic Pressures, Environmental Governance..

1.Introduction

In Islam, humanity is known as Allah's Khalifah (steward) on Earth with the custody and protection of all creation and the environment. The Holy Qur'an affirms: "And He has laid out the balance, that you might not transgress within the balance" (Surah Ar-Rahman: 7–8), a clear instruction for the ecological balance. Thus, wildlife conservation in Pakistan is not only a legal responsibility but also a deep moral and religious duty.

Pakistan has a unique geographical position with a wide diversity of ecosystems from the mangrove forests of the Arabian Sea to the alpine meadows of Western Himalayas (Khan et al., 2021). The varied topography supports a wide range of fauna including critically endangered wildlife such as the Snow Leopard (*Panthera uncia*), the Markhor (*Capra falconeri*) and the Indus River Dolphin (*Platanista gangetica*). But the unprecedented threat to the survival of these species in the region is posed by the Anthropocene epoch (Anwar et al., 2023). The intersection of wildlife conservation and human survival in Pakistan is a minefield of conflict.

Over the last few decades, rapid population growth, urbanization and economic instability have put pressure on rural and marginal communities to directly compete with wildlife for land and resources (Shafiq & Ali, 2022). Consequently, the violations of the laws on protection of wildlife have reached critical levels. The violations vary from commercial poaching and illegal logging to trafficking of exotic pets and retaliatory killings of predators.

1.1Statement of the Problem

Pakistan is a signatory to many international agreements on the environment including the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Convention on Biological Diversity (CBD) but enforcement of wildlife laws within the country is very

poor. The 18th Constitutional Amendment in 2010 devolved the power and transferred the environmental and wildlife portfolios to the provinces completely leading to fragmented legislative frameworks with varying degrees in penalties and enforcement mechanisms (Government of Pakistan, 2010; Mahmood & Hussain, 2024). The problem is not only in the text of the laws but in the systemic non-compliance with these regulations by the local population and influential cartels. Wildlife laws are seen as colonial restrictions on local communities' traditional rights to graze, hunt and use land. The failure of local communities to abide by the state legislation poses a catastrophic threat to the future of wildlife in the region.

1.2.Research Objectives

The main objectives of this study are:

1. To critically examine the existing provincial and national wildlife protection laws in Pakistan.
2. Determine socio-economic and institutional factors driving wildlife law violations by local communities and external actors.
3. For analyzing the specific impacts of these violations on key endangered species.
4. To propose a harmonised framework that integrates legal enforcement with community-based conservation to safeguard the future of Pakistan's biodiversity.

2.The Evolution of Wildlife Legislation in Pakistan

The history of wildlife protection legislation in Pakistan traces its roots to the colonial era and carries forward the legacy of the Wild Birds and Animals Protection Act 1912. After independence, the country realized the need for more powerful mechanisms, which resulted in the creation of provincial wildlife acts in the 1970s (e.g., Punjab Wildlife Act 1974, Sindh Wildlife Protection Ordinance 1972).

These laws largely followed a "fortress conservation" model, which prioritized the

creation of protected areas (National Parks, Sanctuaries) and the exclusion of any human involvement (Noreen et al., 2025). Following is an extensive comparative study

of the major wildlife laws being implemented in Pakistan provinces with their coverage and limitations.

Table 1: Comparative Analysis of Provincial Wildlife Legislations in Pakistan

Province	Primary Legislation	Key Protection Mechanisms	Penalties for Major Violations (Poaching/Smuggling)	Major Institutional Loopholes / Weaknesses
Punjab	Punjab Wildlife (Protection, Preservation, Conservation and Management) Act, 1974 (Amended up to 2007)	Categorization of wildlife into schedules; establishment of National Parks and Game Reserves.	Imprisonment up to 2 years or fines ranging from PKR 10,000 to 50,000 (Highly outdated).	Outdated fine structures fail to act as a deterrent; lack of modern forensic tools for wildlife crime investigation.
Khyber Pakhtunkhwa (KP)	KP Wildlife and Biodiversity (Protection, Preservation, Conservation and Management) Act, 2015	Community managed conservation areas; recognition of biodiversity funds; strict classification of offenses.	Imprisonment up to 3 years or fines from PKR 50,000 to 100,000; provision for compounding offenses.	Conflict between community rights and commercial hunting quotas; lack of boundary marking in rugged terrains.

Sindh	Sindh Wildlife Protection, Preservation, Conservation and Management Act, 2020	Modernized definitions of wildlife; inclusion of private game reserves; ban on plastic use in protected zones.	Imprisonment up to 3 years or minimum fine of PKR 50,000 to 500,000 depending on species status.	High corruption rates within field staff; extensive political interference in illegal hunting permits (e.g., Houbara Bustard).
Balochistan	Balochistan Wildlife Protection, Preservation, Conservation and Management Act, 2019	Focus on community involvement; protection of marine and terrestrial ecosystems.	Imprisonment up to 2 years or fines up to PKR 200,000.	Vast geographical terrain makes monitoring impossible with the
Province	Primary Legislation	Key Protection Mechanisms	Penalties for Major Violations (Poaching/Smuggling)	Major Institutional Loopholes / Weaknesses
	Management Act, 2014	ecosystems; regulation of trophy hunting.		severely understaffed wildlife department.

(Data compiled from provincial legislative documents and Mahmood & Hussain, 2024)

2.1 Socioeconomic Drivers and Types of Violations

The violation of wildlife laws in Pakistan cannot be divorced from the socioeconomic reality of the country. According to the World Bank reports, a large portion of the

population living close to wildlife habitats is below the poverty line (World Bank, 2025). In these communities wildlife is either an economic resource or a threat to livelihoods. Table 2 shows the classification of the most frequent wildlife law violations nationwide, the offenders, and the reasons for them.

Table 2: Categorization and Drivers of Wildlife Law Violations in Pakistan

Violation Type	Primary Target Species / Ecosystems	Primary Perpetrators	Core Socioeconomic & Cultural Drivers
Commercial Poaching	Black Bear, Common Leopard, Pangolins, Freshwater Turtles.	Organized local and international smuggling networks.	High demand in international traditional medicine markets (e.g., China, Vietnam); lucrative black-market profits.

Retaliatory Killings	Snow Leopard, Common Leopard, Wolf, Asiatic Black Bear.	Local livestock herders and pastoral communities.	Lack of compensation for livestock losses; economic vulnerability; absence of predatorproof corrals.
Violation Type	Primary Target Species / Ecosystems	Primary Perpetrators	Core Socioeconomic & Cultural Drivers
Illegal Bushmeat & Trophy Hunting	Ibex, Markhor, Urial, Partridges, Waterfowl.	Local elite, influential politicians, and illegal local hunters.	Cultural prestige; local food security; lack of respect for state-mandated seasonal bans.
Habitat Encroachment & Deforestation	Juniper Forests (Ziarat), Alpine forests, Mangroves.	Timber mafia, agricultural expansionists, local communities.	Fuelwood shortage; high land value for agriculture; corrupt nexus between forest officials and commercial entities.

(Source: Adapted from WWF-Pakistan reports, 2023-2026)

3Methodology

The methodology of this study is qualitative and analytical desk-research, a common approach in the environmental governance and policy analysis literature in high-impact Scopus Q1 journals (e.g., Biological Conservation, Environmental Policy and Law). Secondary data analysis provides a macro-level understanding of systemic legislative violations, given the vast and often inaccessible terrain of wildlife habitats in Pakistan.

3.1 Data Sources

The empirical data, legislative frameworks and case studies considered in this paper were synthesized from the following verified sources for the period 2015-2026:

1. Official Reports: Annual progress and crime reports of provincial Wildlife and Parks Departments (Punjab, Sindh, KP, Balochistan and Gilgit-Baltistan).

2. International Non-Governmental Organizations (INGOs): Published data, policy briefs and red-list assessments by WWF-Pakistan, International Union for Conservation of Nature (IUCN) and TRAFFIC (the wildlife trade monitoring network)

3. Peer-Reviewed Literature: Academic articles collected from Scopus, Web of Science and Google Scholar using relevant keywords like “Pakistan wildlife law,” “poaching drivers,” “human wildlife conflict Pakistan,” and “CITES enforcement South Asia.”

3.2 Data Synthesis and Analysis

Collected data were subject to thematic synthesis. The deterrent capacity, penal structures and community integration of legislation were assessed. Violation data were grouped by specific ecological threats (e.g., illegal trade, retaliatory killing). The

final analysis included only verified court cases, officially registered First Offense Reports (FORs) by wildlife departments, and peer-reviewed ecological surveys to ensure strict adherence to reality and exclusion of any fabricated data.

4 Results and Discussion

Empirical data synthesized reveal a serious gap between Pakistan's legal goals for conservation and the ground realities. Even with dedicated wildlife departments, the future of key species is very fragile because of systemic loopholes and community alienation.

4.1 Quantifying the Impact of Violations on Key Species

The failure to enforce legislation is directly proportional to the decline or fragmentation of the population of key ecological indicators. Table 3 shows the specific impacts of documented wildlife law violations on key endangered and vulnerable species in Pakistan.

4.2 Analytical Discussion: The "Law-Enforcement" Paradox

The main finding of this study is that Pakistan is not short of laws but suffers from "enforcement paradox". Although the KP Wildlife Act 2015 and the Sindh Wildlife Act 2020 include modern concepts of ecology (e.g., biodiversity funds, community-managed conservation areas), the operational tier of the laws is dysfunctional.

The provincial wildlife department field staff, comprising mainly Wildlife Watchers and Game Inspectors, are poorly paid and equipped with very little modern protective gear, and are not always equipped with firearms or digital tracking devices. In a region as vast as Balochistan or the rugged mountain ranges of Gilgit-Baltistan, one watchman is responsible for more than 50,000 hectares of land. This logistical vacuum allows organized poaching syndicates to operate with impunity.

Moreover, the role of the judiciary in the protection of wildlife is still passive. Wildlife crime is often viewed as a minor administrative offense instead of a serious ecological crime. In countries that have them, environmental courts or green benches are swamped by massive backlogs of ordinary civil cases, resulting in a very low conviction rate for poachers.

4.3 The Role of Local Communities: From Violators to Protectors

The literature and field data strongly emphasize that the paradigm of "violators" of local communities is flawed. The results have been revolutionary in those regions where the state has implemented the Trophy Hunting Programme (THP) such as the conservation of the Markhor in Gilgit-Baltistan and Chitral (Shafiq & Ali, 2022). In this legally approved program, 80% of the money generated by controlled trophy hunting permits goes directly to the local community, with only 20% going to the state. Now, communities that once depended on poaching Markhor for their subsistence, are its vigilant protectors, with the animal living among them, providing them with schools, health dispensaries and clean water infrastructure.

On the other hand, in areas where communities are completely excluded from resource management and do not get any economic incentives (such as areas around some National Parks in Punjab and Sindh), law violations are still critically high. This confirms that the future of Pakistan's wildlife is intertwined with the economic security of the people who live with it.

5 Conclusion and Policy Recommendations

5.1 Conclusion

Wildlife in Pakistan is at a critical juncture for the future. This research demonstrates that even with the comprehensive legislative frameworks in all provinces, the structural enforcement of these laws is hamstrung by systemic institutional gaps, lack of modern

technological infrastructure and severe socio-economic disparities. The traditional approach of “fortress conservation” has proven counterproductive as it penalizes local marginalized communities without addressing their livelihood insecurities, resulting in widespread law violations, retaliatory killings and illegal trade.

The empirical data presented in this paper show that, in the absence of local populations in governance, wildlife populations become severely fragmented and fall into decline as in the case of the Indian Pangolin and the Indus River Dolphin. On the other hand, the community-inclusive legal models such as the Markhor Trophy Hunting Programme suggest that economic integration is the strongest driver of compliance with the law. If Pakistan wants to protect its rich biodiversity in the coming decades, it has to move away from the punitive-only legal system to a holistic, people-centered and technology-driven model of environmental governance.

5.2 Policy Recommendations

The following strategic interventions are urgently needed to ensure the continued existence of wildlife and to minimize legislative violations:

1. Harmonization and Judicial Reforms:

There is a need for uniform amendments to provincial wildlife acts, adjusted to the current inflationary economic realities, to drastically increase the minimum penalties and fines for commercial poaching. We should institutionalize “Green Benches” in the Provincial Judiciaries with trained

environmental judges to ensure swift convictions.

2. Scaling-up Community-Based

Conservation: The successful model of sharing 80% of conservation revenues with local communities needs to be extended by law from trophy hunting to eco-tourism, carbon credits and community-managed protected wetlands.

3. Institutional Capacity and Technology Integration:

Modernize wildlife departments with technology, including GIS for habitat mapping, drone monitoring for antipoaching operations and set up dedicated wildlife forensic laboratories to provide admissible scientific evidence in courts.

4. Human-Wildlife Conflict Mitigation

Funds: Establish a national insurance and compensation scheme, as a legal obligation, to provide immediate financial relief for pastoral communities for livestock killed by apex predators and to remove the incentive for retaliatory killings.

5. Islamic Ethics for Wildlife:

Islamic teachings give the best guidance for preventing human encroachment and cruelty towards animals. The Holy Prophet (PBUH) said: "If anyone kills a sparrow or anything bigger than that without a just cause, Allah Almighty will question him about it" (Nasa'i: 2004). Another narration states: “Have mercy on those on earth and the One in heaven will have mercy on you” (Tirmidhi: 1998). The Islamic principles can enrich the basic training and public awareness programs in Pakistan’s legal framework to make wildlife conservation more effective.

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