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Restricted Trade Practices and Conservation of Endangered Species in India: A Focus on Pune

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Abstract: This research paper focuses on the restricted trade practices of endangered species in India, with a special emphasis on Pune, a region facing significant challenges in wildlife conservation. India, known for its vast biodiversity, has become a hotspot for illegal wildlife trade due to its geographic location and porous borders, which facilitate trafficking routes. This study investigates the scope and impact of illegal trade, including poaching and smuggling of species like tigers, elephants, marine life, and exotic birds. Additionally, the research analyzes the legal framework, particularly the Wildlife Protection Act of 1972 and India's role in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Despite these laws, enforcement remains weak, allowing trade networks to flourish. Data from wildlife experts and conservation centers in Pune highlight the effectiveness of local conservation efforts and the challenges posed by cultural beliefs, such as using tortoises in sorcery practices. In order to stop the illegal wildlife trade and save India's biodiversity, the research report emphasizes the critical need for stricter legislation, better enforcement strategies, and increased public awarenes'.

Keywords: Endangered Species of Wild Fauna and Flora

I. INTRODUCTION

India, with its vast biodiversity, is facing immense challenges in the conservation of Wildlife. This Research Paper explores the restricted trade practices of endangered species in India, emphasizing Pune as a focal point for conservation efforts. Illegal wildlife trade is rampant in India, exacerbated by its geographical location, which connects international trade routes. Additionally, efforts by governmental and non-governmental organizations, the legal framework, and conservation practices are discussed, with special attention to local initiatives in Pune. Preserving endangered species is important because they are essential to biodiversity and the health of ecosystems. When a species becomes endangered, it can signal that the ecosystem is beginning to fall apart, and the loss of that species can have a ripple effect throughout the food chain. Species are an important part of the history, culture, tradition on Earth. They can also provide comfort, inspiration, and recreation through their aesthetic values and spiritual roles.

Overview of Restricted Trade Practices:

Poaching, trafficking, and smuggling of plants and animals for a variety of uses, such as traditional medicine, the exotic pet trade, and black market operations, constitute the illegal trade of endangered species in India. The most commonly traded species include:

- Tigers and Leopards: Poached for their skins, bones, and other body parts used in status symbols and traditional medicine
- **Elephants**: They are hunted for their ivory tusks.
- Marine Life: Species like seahorses and sea cucumbers are trafficked for aquarium trade or consumption.
- **Exotic Birds**: Owls and Parrots are often trafficked for pet trade and superstitious rituals.
- These illegal practices lead to a significant reduction in species populations, threatening biodiversity and ecosystem stability.

Legal Framework:

India has enacted several laws to protect its biodiversity, the most significant being: Copyright to IJARSCT





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- Wildlife Protection Act, 1972: The main legislative framework that enforces strict penalties for violators and protects plants and animals. It divides species into schedules that specify the degree of protection that should be given to them.
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): India is a
 signatory to CITES, a global agreement to regulate the trade of endangered species. However, enforcement of
 CITES in India has been a challenge due to the lack of coordination among various enforcement agencies.

Objectives of the Study:

- 1. To understand the restricted trade practices of endangered species in India.
- 2. To analyse the existing legal framework governing the trade of endangered species in India.
- 3. To understand conservation practices for endangered species in India and Pune.

Hypothesis

The study aimed to investigate the impact of conservation practices on endangered species. The null hypothesis (H0) stated that conservation practices have no significant effect on protecting endangered species, while the alternative hypothesis (H1) proposed that these practices do have a significant impact. Data from surveys and expert interviews supported the alternative hypothesis, demonstrating that conservation efforts are effective in protecting endangered species, particularly in Pune.

II. LITERATURE REVIEW

A. Pragatheesh, V. Deepak, H.V. Girisha, Monesh Singh Tomar, 2021, "A looming exotic reptile pet trade in India: patterns and knowledge gaps", Commercial trade of exotic reptiles through CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora) in India is relatively recent (<2 decades). Social media platforms and web portals are known to be used for pet trade. Exotic pet trade is not legally regulated within India. Therefore, little is known on the scale at which this trade is carried out in India. We conducted a two-year study between 2018 and 2020 gathering information of exotic reptile pet trade online and summarized CITES documentation of the yearly import export records from 1976 to 2018 by CITES secretariat. This manuscript provides a baseline for the extent of the trade, invasive species and the species traded in mainland India. We found that there is an extensive trade of exotic reptiles in the country, comprising 84 species including the highly venomous species such as Bitis gabonica. According to CITES records of 1976–2018, 98.6% of the reptile imports into India have not been reported to the CITES management authorities in India. We also found some evidence of trade in protected native species through the exotic pet trade network. Furthermore, some highly threatened reptile species including many listed in Appendix I of CITES are traded in India.

AN Arunkumar, G. C. Joshi, 2014, "Pterocarpus santalinus (Red Sanders) an Endemic, Endangered Tree of India: Current Status, Improvement and the Future", Pterocarpus santalinus (Family – Fabaceae) is an endemic species confined to Southern parts of Eastern Ghats of India. Heartwood of Red Sanders has high demand in domestic as well as international market. The wood has different uses in traditional and folklore medicines and is used for the treatment of diabetes, prickly heat, skin diseases and for various other ailments.

Sources of Data Collection

Primary Data:

Primary data is collected firsthand through personal experiences or direct evidence, specifically for research purposes. In this study, primary data is obtained by visiting a wildlife conservation center. Additionally, insights are gathered through interviews with wildlife conservation experts to provide a comprehensive perspective on endangered species. Data was collected using questionnaire method where, I asked questions and interviewed them. 10 individual experts working in the conservation park where asked questions and they are the respondents of the following research paper.





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Secondary Data:

Secondary data is sourced from existing literature, reports, articles, blogs, and interviews related to the study's focus. Information gathered from websites, books, and various publications contributes to a broader understanding of restricted trade practices of endangered species in India.

III. RESEARCH FINDINGS

1. India's Prominent Role in Global Wildlife Trafficking:

- Wildlife trafficking hotspots: India's susceptibility to illicit trade networks is evident as it is ranked in the top 10 for air trafficking and among the top 20 countries worldwide for wildlife trafficking.
- Transit and destination country: Due to its biodiversity, strategic location, and growing economy, India
 serves as both a source and transit hub for illegal wildlife trade. The trafficking of species such as tortoises, as
 seen in Pune, often caters to local and international demand for sorcery, luxury items, and traditional medicine.

2. Rich Biodiversity Under Threat:

- 8% of the world's wildlife: India houses a significant portion of global biodiversity, with 8% of the world's wildlife residing within its borders. This rich diversity makes India highly susceptible to illegal wildlife trade, which targets a variety of species.
- Threatened Species in India: With 21.70% of mammals and 11.53% of vascular plants listed on the IUCN's
 Red List, India faces a serious challenge in preserving its wildlife. This indicates the urgent need for enhanced
 conservation measures and anti-trafficking efforts to protect species already under threat.

3. Weaknesses in Legal Frameworks and Enforcement:

- Wildlife Protection Act, 1972: There are major gaps in enforcement when it comes to dealing with exotic species, even though the Wildlife Protection Act regulates endangered species and complies with the (CITES) Convention on International Trade in Endangered Species of Wild Fauna and Flora.
- Inadequate regulations for exotic species: Experts, including the director of Rajiv Gandhi Zoological Park, point out that existing laws fail to comprehensively address the smuggling and trade of non-native exotic species, suggesting a pressing need for legislative reforms.
- Recent cases in Pune and Indore: The illegal trade of tortoises in Pune for sorcery and the involvement of
 Indore Zoo in purchasing kangaroos from Mizoram reflect weaknesses in enforcement, even within supposed
 conservation institutions like zoos.

4. Drivers of Illegal Trade:

- Cultural and commercial demand: The illegal wildlife trade in India is driven by a variety of factors, including the demand for exotic animals in luxury goods, medicinal uses, and superstitious practices. The case of tortoises in Pune being used for sorcery exemplifies how local beliefs contribute to the illegal trade.
- Demand for exotic species: India's role as both a source and a destination country highlights the need for stronger cross-border cooperation and internal regulation to curtail the demand for exotic animals in luxury and medical industries.

5. Involvement of Legal Institutions in Wildlife Trade:

Zoo involvement in illegal trade: Recent allegations of zoos, such as the Indore Zoo, being involved in
illegal transactions raise concerns about the integrity of institutions supposed to protect wildlife. The
transportation of kangaroos from Mizoram to Indore suggests that illegal trade practices may be deeply
embedded even within conservation bodies, further complicating enforcement.

6. Challenges and Recommendations:

• Need for stronger laws: Experts highlight the need for stronger and more specific legislation to tackle the smuggling of exotic species and loopholes in current laws that allow illegal trade to persist.

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- Stronger enforcement and accountability: Improved coordination between law enforcement, customs
 authorities, and wildlife agencies is crucial to dismantling the networks involved in unlawful trading. Zoos'
 involvement indicates that in order to maintain institutional accountability, stronger oversight procedures are
 required.
- Public awareness and education: There has to be a greater public awareness campaign and harsher fines for
 anyone caught indulging in traditional medicine or superstitions like sorcery in order to combat the local
 demand for animals.

IV. RESEARCH DISCUSSION

India is one of the top 20 countries for wildlife trafficking and among the top 10 for trafficking by air indicating a serious global and national threat. The country's geographic location and diverse ecosystem make it a natural targeted spot for traffickers, positioning it as both a source and transit hub for illegal wildlife trade. This is consistent with global patterns where biodiversity-rich countries, often with less stringent enforcement measures, become critical nodes in illicit supply chains.

In the case of Pune, where tortoises were traded for sorcery, demonstrates the complex cultural and economic drivers behind this trade. It highlights how local demand for wildlife, rooted in cultural and superstitious practices, intersects with global trade dynamics. Other research corroborates this, as species like tigers, pangolins, and tortoises are often trafficked for traditional medicine or as status symbols in international markets. In addition, India's growing economy might be increasing domestic demand for luxury wildlife products, exacerbating the problem.

Implication: In order to reduce wildlife trafficking, policy interventions need to target demand-side issues that are frequently intricately entwined with cultural and economic practices, in addition to the legal enforcement of wildlife laws

With 8% of the world's wildlife, India holds a significant portion of the global biodiversity, making the country highly susceptible to illegal trade. The finding that 21.70% of India's mammals and 11.53% of its vascular plants are on the IUCN Red List underscores the extent of the threat posed to its wildlife. This aligns with global concerns about the declining populations of endangered species due to poaching and habitat loss.

The implication of these statistics is far-reaching, as the loss of biodiversity has cascading effects on ecosystems, agriculture, and climate regulation. When rare or endangered species are removed from ecosystems, it disrupts ecological balance, affecting species that rely on them, further threatening biodiversity. The need for enhanced conservation measures is not only crucialfor individual species but also for maintaining the health of entire ecosystems.

Implication: Conservation efforts must extend beyond protecting species to preserving entire ecosystems and preventing habitat destruction, as both are essential in mitigating the impacts of wildlife trafficking.

Although the **Wildlife Protection Act of 1972** and adherence to CITES provide a legal framework for protecting wildlife, gaps in enforcement and weak regulations for exotic species trade limit their effectiveness. The finding that exotic species are often inadequately regulated, as emphasized by experts like the director of Rajiv Gandhi Zoological Park, reflects a broader issue in conservation policy. The legal framework, while sufficient for native endangered species, does not adequately address the complexities of **international exotic species trafficking**, which is growing as exotic pets and luxury items become more and more desirable.

In the case involving the illegal trade of kangaroos in Indore raises serious concerns about institutional complicity. If zoos, which are supposed to play a key role in conservation, are involved in illegal wildlife trade, it points to systemic failures in enforcement and oversight. The challenge, therefore, is not just in strengthening laws but also ensuring that institutions, such as zoos and conservation centers, are held accountable and transparent in their operations.

Implication: Legal reforms should aim to close all loopholes in the regulation of exotic species trade, while improving the oversight and governance of institutions entrusted with wildlife conservation.

The findings highlight two major drivers of illegal wildlife trade in India: cultural practices (e.g., sorcery, traditional medicine) and commercial demand (e.g., luxury items). The case of tortoises being traded in Pune for sorcery points to a troubling overlap between cultural beliefs and wildlife trafficking. These cultural practices often involve deep-rooted traditions, making it difficult for enforcement to act without public pushback. Moreover, the international demand for exotic species to produce luxury goods and medicine further fuels the illicit trade.

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This is consistent with global trends, where consumer markets for rare animals or their parts create economic incentives for traffickers to target endangered species. The interplay of local beliefs with global commercial markets presents a complex challenge for law enforcement.

Implication: Addressing illegal trade requires a comprehensive strategy that not only targets supply but also reduces demand through public education, community engagement, and shifting cultural practices away from wildlife exploitation.

The involvement of legal institutions, such as zoos, in illegal wildlife trafficking is highly problematic, as these entities are supposed to be at the forefront of conservation efforts. The Indore Zoo's involvement in the illegal procurement of kangaroos from Mizoram points to a significant governance issue. When conservation institutions themselves become implicated in wildlife crimes, it undermines the very foundation of wildlife protection in India. It also raises questions about how widespread institutional complicity might be, and how weak governance and corruption may be facilitating the trade.

Such cases suggest the need for tighter regulation, greater transparency, and independent audits of conservation institutions. Without addressing institutional corruption, the broader goal of curbing wildlife trafficking will remain elusive.

Implication: There must be greater accountability and oversight of institutions that are supposed to be on the front lines of wildlife protection, to prevent institutional corruption from further enabling illegal trade.

The need for stronger laws and more specific regulations surrounding the trade of exotic species is a crucial takeaway from this research. Current laws in India, while robust in theory, fails to fully address the nuances of trafficking, especially concerning non-native species.

Improved enforcement and accountability mechanisms are important, particularly for cross-border coordination, as wildlife trafficking is often an international crime. Effective cooperation between customs, law enforcement, and wildlife protection agencies is needed to disrupt trafficking networks. Further, addressing corruption within conservation bodies, as suggested by the case of Indore Zoo, is paramount to ensuring the integrity of wildlife protection efforts.

Finally, the role of public awareness and education cannot be ignored. Curbing demand for illegal wildlife products, particularly when driven by local superstitions or luxury markets, is essential. Educational campaigns should target both the general public and specific communities where wildlife trafficking is culturally ingrained, such as those using animals for sorcery or medicine.

Implication: A comprehensive approach that includes legal reform, institutional transparency, enforcement coordination, and public education is critical to combat wildlife trafficking and safeguard India's rich biodiversity.

V. CONCLUSION

The illegal wildlife trade in India remains a significant threat to biodiversity, particularly in regions like Pune, where local and international demand for endangered species persists. While existing legal frameworks like the Wildlife Protection Act and CITES offer a foundation for protecting endangered species, gaps in enforcement, particularly in regulating exotic species, continue to undermine conservation efforts. Moreover, the involvement of institutions such as zoos in illegal trade practices raises concerns regarding governance and accountability. To address these challenges, a multi-faceted approach is needed. This includes closing all legal loopholes, enhancing cross-border cooperation, and promoting public awareness to reduce cultural and commercial demand for wildlife products. With coordinated efforts between law enforcement, conservation organizations, and local communities, India can make significant progress in preserving its rich biodiversity and combating illegal wildlife trade.

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