

A Review Study on Wildlife Conservation in India

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ABSTRACT: *Wildlife refers to plants and animals that live and thrive in regions that are not inhabited by humans. It encompasses all non-domesticated animals and plants, as well as a wide range of other creatures and fungus. Species may be found in all habitats, including forests, plains, grasslands, deserts, and other places, and each environment has its own unique wildlife. However, as human civilizations advanced, wild animals and flora were domesticated for human use, which had a significant effect on the ecosystem. Many wild animals adapted to the changes in the environment as a result of human activity and began to coexist with people in a domestic setting. Dogs, cats, cows, buffaloes, goats, rodents, and a few kinds of birds are examples of such creatures. The animals and ecosystems were observed to be impacted as human activities grew and development took place on a big scale. It was observed that the exploitation of wild animals for human profit and leisure reasons was increasing.*

KEYWORDS: *Civilization, Domestication, Exploitation, Recreation, Wildlife,*

1. INTRODUCTION

It is common knowledge that India is home to 16 percent of the world's population. 411 mammalian species, 1,232 bird species, 456 reptiles, 219 amphibians, 2,546 fish species, 83,436 types of invertebrates, and over 50,000 plant species all call this subcontinent home. India's wildlife is a priceless natural treasure, with a wide range of flora and animals. India is home to one of the world's most diverse biodiversity hotspots. This country's fauna includes a diverse range of plant and animal species. Tigers, lions, wolves, bears, rhinoceros, camels, monkeys, and a variety of reptiles, crocodiles, deer, bison, and the Asian elephant are all indigenous to this nation. Peafowl, pelicans, parakeets, woodpeckers, and flamingos are among the many bird species found there. India contains three biodiversity hotspots, which are located in the Western Ghats, the Eastern Himalayas, and the Indo-Burma area, respectively, among the world's 34 biodiversity hotspots. Western India's grasslands are known for their hunting animals as well as their grazing herds. The Indian cheetah is no longer found in its native habitat, although lions and leopards still roam the plains[1]–[4].

India has established 104 National Parks, 18 Bio-Reserves, and more than 515 sanctuaries to safeguard and maintain its rich, varied, and diversified wildlife reserve. Many plant and animal species are unique to India, as shown by a research that found that 12.6 percent of bird, 7.6 percent mammalian, 6.2 percent reptile, and 6.0 percent floral species are local to the nation. According to the research, approximately 33% of plant species are unique to India, making it one of the world's

biodiversity hotspots with around 70% endemic and varied plant and animal species. India also boasts a diversified forest belt, which reflects the subcontinent's various climate patterns and has given rise to a vast variety of animal species [5], [6] .

From tropical rainforest in the Andaman Islands, the North-Eastern region, and the Western Ghats to moist deciduous forest in the East, dry deciduous forest in Central and South India, thorn forest in the Deccan and Western Gangetic Plain, and coniferous forest in the Himalayas, India has a vast belt of forests [7].

Human development activities and encroachment on animal habitat have caused a severe danger to the wildlife, particularly indigenous species such as the Asiatic Lion, Bengal Tiger, Indian White-rumped Vulture, Nilgiri Leaf Monkey, and others. India has 172 wildlife and endemic species listed as endangered by the IUCN, accounting for 2.9 percent of the world's vulnerable species.

1.1. Wildlife Conservation: Issues and Threats:

The practice of protecting animal and plant species in their native habitats is referred to as wildlife conservation. The primary goal of wildlife conservation is to preserve animals while also preserving environment and natural habitats for people and wildlife. Many governmental and non-governmental organizations have been established for the purpose of wildlife conservation and preservation in support of this effort.

Human actions for their own survival and profit have had a significant impact on animals all over the globe. This has led in the demise of many wild creatures and plants, as well as a loss of biodiversity [8]–[10]. A significant number of animal and bird species have gone extinct in the last 2000 years, according to research. Some of the causes were due to climate change, while others were due to human actions for personal gain, such as food, clothes, housing, and medicine. Many more species of animals are likely to become extinct in the near future unless they are preserved via appropriate conservation measures and the enactment of effective laws. As a result, international organizations and almost all nations around the world have banded together to protect wildlife and the environment by passing legislation, enacting laws, establishing national parks, biosphere reserves, and wildlife sanctuaries, and strictly enforcing these laws and acts in their respective countries and regions.

However, wildlife protection has become a significant issue. Animal and plant conservation primarily seeks to prevent endangered species from going extinct as a result of different human and human-induced activities. Human invasion and activities, as well as a few natural causes, pose many dangers to wildlife, which are listed below:

Human activities such as tree felling, dredging rivers, building dams, filling marshes and mowing fields, usage of lands for agriculture, construction of homes and roads, and so on may cause habitat

destruction and fragmentation. Habitat degradation may occur as a result of rising pollution levels, the invasion of new species, and changing ecosystems, among other factors.

- Illegal trading, hunting, and poaching of endangered species: Illegal hunting and poaching have presented a serious threat to wildlife, which is exacerbated by the forest authorities' lack of appropriate management and resource allocation to combat the threat and preserve the animals.
- Climate change: Global warming and climate change have both posed significant threats to species. This is due to human-induced activities such as the combustion of fossil fuels.
- Overexploitation of resources: The exploitation and overexploitation of resources for food and other reasons has put wildlife, particularly endangered species, at jeopardy. Overuse of wild animals and plants for food, medicine, clothing, and other purposes has had a negative impact on wildlife populations, posing a danger to their survival.
- Pollution: As a consequence of rising pollution levels caused by human activities and industrial operations, hazardous and poisonous pollutants have been released into the air, water, and land. As a result, it has had a negative impact on animals, putting them at risk of extinction.

As a result, the threat to wildlife and endangered plant and animal species necessitates their protection in order to preserve the ecosystem's balance and rescue the planet. Governments all around the globe are striving to preserve and conserve wildlife by passing laws and Acts and ensuring that these legislations and Acts are effectively implemented. The Indian government has responded by creating national parks, animal sanctuaries, biosphere reserves, and protected regions in response to the dangers.

The first National Park was created in 1936 and was originally known as the Hailey National Park before being renamed the Jim Corbett National Park. The number of national parks steadily increased after then, and as of April 2012, the country has 104 national parks. More than 500 animal sanctuaries and 18 biosphere reserves were established throughout the nation to sustain it. There are now 515 wildlife sanctuaries, 41 of which have been designated as Tiger reserves under Project Tiger. In addition, the Indian government has passed a number of laws and acts relating to the preservation and conservation of wildlife in the nation.

1.2.Challenges in Effective Implementation of Wildlife Protection Laws in India:

The exploitation of wildlife for commerce and other human advantages has led in the enactment and enforcement of different laws and acts in virtually every country on the planet. India, as a nation with abundant biodiversity, is not immune to this. Despite the fact that laws established with the goal of preserving and conserving wildlife include severe restrictions, animal resource exploitation and illicit trafficking persist. Hunting, animal poaching, tree uprooting, and the use of unique plant species for different reasons have all contributed to the country's biodiversity loss and

danger of extinction. Despite provisions in India's Wildlife Protection Act, Customs Act, and Import-Export policies regulating conservation and trade of wildlife species, particularly endangered species, illegal hunting and poaching activities and trade continue to flourish, and these endangered species are still exploited. The WP Act also does not apply to foreign endangered plant and animal species, and therefore does not have the power to protect them if they are hunted, poached, or exploited.

Another issue that has been found is that forest departments and forest officers are unable to operate effectively in enforcing laws and facilitating conservation efforts due to a lack of sufficient training and resources. The enforcement system of the legislation in India for the conservation and preservation of wildlife seems to be complex. On the one hand, the laws empower forest officials to preserve the forest's resources, but they lack the authority to formulate policies in response to the situation, which complicates the confiscation of fallen wood or poached animals. This has also aided in the expansion of exploitation operations. For selfish motives and corruption, the forest department, on the other hand, participates in exploitation operations. It has been observed that forest authorities have never enlisted the assistance of local residents in the surrounding areas to combat wildlife exploitation, despite the fact that these people are capable of assisting in the prevention and protection of animal resources.

Environmentalists, NGOs, and law enforcement officials concerned with animal preservation and conservation have recently become aware of a new issue. Many birds classified in Schedule I of the Wildlife Protection Act of 1972 have been killed as a result of human recreation of flying kites. Many of the Schedule I birds are killed by the threads, locally known as 'manja,' which are used for kite flying, particularly the Chinese thread. Despite the fact that the use of Chinese thread for kite flying is prohibited under Section 5 of the Environment (Protection) Act, 1986, it is nevertheless widely used. This has resulted in the deaths of a large number of birds, some of which are indigenous to the nation and others of which are migratory species.

1.3.Possible Wildlife Conservation Solutions and Legislation Implementation:

All issues relating to wildlife preservation and conservation must be handled in accordance with the law while also considering alternative solutions to ensure that wildlife is preserved and conserved. In order to put a halt to the illicit and unlawful exploitation of wildlife resources in India, tougher measures must be implemented. These efforts may take the form of public awareness campaigns as well as educational programs for wildlife protection authorities and law enforcement officers.

1.3.1. Public and Government Awareness:

There is a need to raise awareness among forest and other government employees stationed in protected areas and reserves in order to achieve the goal of preserving and conserving species. These individuals should get training and research on animal conservation methods as well as the legal procedures available to preserve them. There is also a need to engage local residents who

live in the protected areas' surrounding regions by educating them about the significance of wildlife conservation and preservation, as well as the laws that regulate it. All relevant legal measures for preserving and conserving wildlife and endangered species should be made accessible to the local population. They should also be educated about the penalties and punishments that will be imposed if any laws are broken and wildlife is harmed. This will aid in raising awareness among the local population, which will in turn aid in giving support to forest authorities and government officials operating in these protected regions.

1.3.2. Recognizing and engaging non-governmental organizations:

With the assistance of their efforts, non-governmental organizations (NGOs) play an essential role in the preservation and conservation of wildlife. The Wildlife Preservation Society of India is one such group that aims to provide information and assistance to government officials involved with wildlife protection and conservation in order to combat illicit wildlife trade and poaching of wild animals, thus preserving the ecosystem. The participation of such NGOs will significantly aid in the protection of India's natural riches. In-situ and ex-situ breeding, improving the resilience of natural reserves, and the establishment and administration of biosphere reserves are some more ways to preserve and conserve species.

1.3.3. Conservation in-situ and out-of-situ:

Ex-situ and in-situ conservation methods are two essential strategies for wildlife conservation, particularly for endangered plants and animals. Ex-situ conservation is carried out at a location outside of these species' natural environment, while in-situ conservation is carried out in their natural habitat. These conservation methods help with animal reintroduction and relocation, safeguarding endangered species from climate change and human activities. Captive breeding of animals and plants that are endangered by human activities and climate change and are on the brink of extinction is one example of this kind of plant and animal conservation. These conservation efforts take place in protected areas, but the effectiveness of these measures is dependent on the severity of climate change and its impact on species.

1.4. Improving Nature Reserve Resilience:

This strategy calls for the preservation of natural reserves, the creation of buffer zones, the reduction of human activities such as building, roads, and transportation, the reduction of wildlife tourism, the reduction of habitat fragmentation, the conservation of genetic diversity, and the protection of biodiversity "hot spots," all of which help to prevent extinction and protect threatened species. In order to maximize resilience, buffer zones surrounding fragmented landscapes must be created. Buffer zone-protected areas also need rehabilitation, which focuses on mitigating particular climate change effects. Some ecosystems have intact landscapes and may have adequate resilience, but the use of land and water by humans who live in these areas must be managed in order to avoid the loss of resilience. The management of vegetation inside these areas also contributes to the preservation of resilience.

In places where the threat to wildlife and endangered species is greater, such measures must be undertaken by the government. In these natural reserves and buffer zones, the government also needs to have regulated wildlife tourism. Wildlife tourism has a negative impact on breeding and feeding patterns, as well as disrupting nesting sites, so the government must keep a close eye on these activities and ensure that the rules and regulations set forth in the relevant Acts and legislations are followed by forest officials and other interested parties. If rigorously followed, this approach will show to be very helpful in terms of wildlife protection and conservation, as well as the preservation of animals in their natural environment.

1.5. Biosphere Reserves:

A biosphere reserve is a micro-territory or a big piece of land that tackles many problems of plant and animal species preservation using various methods depending on their condition. These reserves are sometimes split into smaller sections based on geographical or human considerations. The biosphere reserve is divided into three zones: core, buffer, and transition zones. Depending on the needs and goals of the biosphere reserve, each zone is handled differently. The establishment and administration of a number of biosphere reserves and other protected areas is an essential approach for wildlife protection and conservation. It entails connecting corridors and habitat matrices, which aid in the integration of fragmented areas and landscapes by allowing flora and animals to disperse and migrate.

There are now 18 biosphere reserves in India. The Indian government established these reserves in order to preserve and conserve wildlife. Human activities in and around these protected areas have resulted in a variety of issues and dangers to wild animals and vegetation. As a result, the government must be vigilant and aware of human activity, including study in these areas. The federal government and state governments should work together to preserve these biosphere reserves and ensure that the authorities stationed there are following the legal requirements and regulations. If rules are broken and wildlife is damaged, the government should establish more stringent penalty measures.

2. DISCUSSION

With increasing worries about illicit trade and exploitation of animal resources, wildlife preservation and conservation is a major challenge in India. This aim will not be accomplished unless and until all levels of government, villages and local people living in and surrounding protected areas, non-profit and nongovernmental organizations, law enforcement officials, and the general public collaborate. India has a rich history and is endowed with natural resources that are both valuable and unique to the nation, making it a biodiversity hotspot. As a result, everyone must work together to preserve this valuable resource and maintain a healthy ecosystem. Despite the fact that the country's laws relating to the preservation of wildlife and their natural habitat have been established and implemented to offer stringent legal protections for the cause of wildlife protection and conservation, the ground reality is not the same.

3. CONCLUSION

Animals are still hunted and sold for human gain, and nature is still abused. Even the use of hazardous chemicals in industries, everyday human activities, road and building construction, and leisure and entertainment activities has a negative impact on the environment, which impacts animals and their natural habitat. Illegal wildlife hunting and trading continue to take place in India, notwithstanding the laws' provisions. As a result, there is a significant need for public knowledge of wildlife preservation and conservation, as well as efficient and rigorous enforcement of these laws by each state. State governments must monitor the successful implementation of wildlife protection and conservation legislation at the district and municipal levels.

The need for effective methods and solutions for the preservation and conservation of wildlife in India is urgent. In a scenario when many animal species are endangered and many are on the brink of extinction, the government must act in line with current requirements and expectations. To preserve wildlife and prevent illicit hunting and trafficking of these endangered species and wildlife in general, state governments and the federal government must collaborate and execute all applicable laws and conservation measures.

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