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Conflict on the Fringes: Legal Remedies for Human-Wildlife Conflicts in India

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ABSTRACT

This article outlines the complex issues of Human-Wildlife Conflict (HWC) in India, and its causes and effects. It also highlights the legal and policy measures introduced to address this problem, along with the judicial responses and landmark cases, which illustrate the role of the judiciary in HWC mitigation. It ends with some adverse notes on present legal aspects such as lack of implementation, policy conflict and a gap in awareness and capacity, that could help them devise better HWC mitigation measures in times to come. India being one of 17 mega biodiverse countries in the world, its ecosystems are home to a wide variety of flora as well as fauna. With an increase in the human population, humans and wildlife are moving from niche areas to shared habitats, leading to multiple interests of these species in common spaces and consequently HWCs. A common manifestation of the HWC is a raid on the crops, attack on cattle, damage to property or people. Through legislative measures in the Wildlife (Protection) Act 1972, The Forest Rights Act 2006, along with policy measures in National Wildlife Action Plan and Project Tiger, this conflict is tried to be mitigated while also taking into account the goals of conservation of wildlife and people. This legal and policy framework has largely seen the judiciary as a strategic partner in the war against HWC. The judiciary adjudicates the land disputes between humans and wildlife, establishing a green and more congenial way to mitigate. This article wraps up with certain stark issues in the present legal framework like lack of implementation, policy conflict, a gap in knowledge and capacity that could help them design better HWC mitigating measures in times to come.

Keywords: *Human-Wildlife Conflicts, Wildlife (Protection) Act 1972, Forest Rights Act 2006, National Wildlife Action Plan, Project Tiger, Conservation.*

I. INTRODUCTION

India's rich geographical profile, featuring humid tropical forests of the east and arid deserts of the west, rugged mountain tops of the north and coastal lowlands of the south, is home to an amazing biodiversity, which includes 28,500 species of insects, 12,600 species of flowering

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plants, 4,676 species of fungi, 898 species of birds, 202 species of amphibians, 495 species of reptiles, 272 species of mammals and 9,600 marine species, mostly unknown to us. Though this enormous biodiversity is a great boon for the nation's large economy, it comes with its own complexities, especially the human-wildlife conflicts. These take various forms, such as wild herbivores raiding crops and damaging farms, carnivores attacking livestock, and, in 109 cases in the past five years, wild animals directly attacking humans. The legal regime for the protection of wild animals in India is embedded in numerous statutes, with the Wildlife (Protection) Act, 1972 being a tent-pole. However, the efficacy of these legal instruments, vis-à-vis the judicial opinions, merits a critical lens to ensure that conservation goals are met without trampling on human rights. (Arengo, n.d.)

The spectrum of wildlife-human conflicts in India is vast, given the diverse humanity and ecology of the country. These conflicts pose a direct threat to human life and assets as well as impede the conservation of wildlife. As wildlife habitat gets increasingly encroached by the expansion of agricultural practices, urban and industrial development, wildlife finds itself under greater pressures to roam closer to human settlements, increasing conflict potential. For instance, elephants forage across large swathes of farmlands and destroy crops in a single night, leading to large economic losses for farmers. Livestock of village communities are preyed upon by wildlife such as tigers, leopards and hyenas; the large financial costs, poor livelihood options and associated sociocultural aspects bring out deep-seated conflicts towards the species. These conflicts result in the indiscriminate killing of the concerned wildlife, leading to economic losses as well as population pressures.

Indeed Human-Wildlife Conflict, an important conservation issue, is also an issue of human rights. On one hand, we want to protect wildlife to ensure biodiversity, ecological health and the wellbeing of the entire planet. On the other, we also want to protect our human populations living in proximity to wild animals, and live our lives without fear of injury and loss of livelihood. The legal response to Human-Wildlife Conflict in India must thus walk this fine line without sacrificing one right for the other. To do so, the primary objectives have to be clearly defined.

It was the judiciary that, through several precedent-setting judgments, has steered the course of wildlife protection and human rights jurisprudence in India. Indian courts grappling to interpret and apply the provisions of the WPA, 1972 and other applicable statutes to resolve Human-Wildlife Conflict cases, have guided the enforcement of existing laws and, sometimes, brought about legislative changes or policy directives to mitigate Human-Wildlife conflict.

The idea behind good Human-Wildlife Conflict Management is that we need a legal framework that is strong enough and wide enough to cover all possibilities of conflict be expressions and incidents, but also flexible enough. Those laws and policies need to cover preventative measures, ensure victims' prompt relief, and deal with long-term conservation objectives. They should also aim to bring local communities to the heart of wildlife conservation efforts, to acknowledge their needs, their right to live and make a living, and ensure they play a key role in decision making processes. (Atapattu, 2021)

II. UNDERSTANDING HUMAN-WILDLIFE CONFLICTS

Human-wildlife conflicts are an issue that exists in the overlap of conservation law, human livelihoods and legal jurisprudence. They stem from the fact that sometimes the requirements of wildlife competing and the needs of human beings are in conflict. These conflict situations tend to have deeper meanings than a mere human's life lost or a mere rupee/dollar in economic loss; they also represent major issues relating to environmental justice, sustainable development and the welfare of wildlife. (Viswanath, 2018)

(A) Nature and Types of Conflicts

The sheer size and diversity of India's wildlife, and its widespread powers, mean that Human-Wildlife Conflict can occur in many different forms, and at differing scales, each with its own characteristic features and implications for potential legal and policy solutions. These are addressed below. It must be noted first of all that there are a whole range of conflicts related to wildlife, which fall into two broad categories: (i) conflict between humans and wildlife and (ii) conflict between different types of wildlife, both of which are discussed below. It is important and instructive to recognize the differences and overlaps. (Chandraprakash, 2019)

1. Crop raiding: Crop raiding, which is said to be the most widespread human-wildlife conflict in the world, is when herbivores such as elephants, wild boar and nilgai (blue bull, an antelope from southeast Asia) feed on agricultural crops, thereby inflicting huge economic losses to farmers. Most often these crops get damaged in areas bordering forest reserves and protected areas of India because these are the natural habitats of these animals.
2. Livestock predation: Predatory wildlife species such as tigers, leopards, wolves and hyenas often stray into human settlements in search of food. This leads to livestock predation, causing economic loss as well as, at times, retaliatory killing of the predator, which adversely affects conservation.

3. Property damage: Especially when it comes to large species such as elephants, crop-raiding and property damage (as well as damage to irrigation systems, roads, etc) cause considerable expense and can be devastating for an individual or community.
4. Human Injuries: While they are much less common, human encounters with wildlife can result in human injuries or even death. These cases do much to increase locally held anger about wildlife conservation measures.

(B) Geographical Hotspots

Some parts of India are especially beset by Human-Wildlife Conflict because of their ecological features as well as the closeness of human habitat to wildlife habitat;

- Earth Visuals Kerala: An ecotourism center on the shores of a wildlife sanctuary in Kerala. India is bestowed with natural beauty and cultural vibrancy in abundance. However, the closeness of human habitat to wildlife habitat is mainly responsible for this conflict. This situation creates tension between the government's concern for wildlife conservation and the people's fear of wild animals. To save the endangered species, the government is required to design a model of human-wildlife cohabitation. Some part of the population acknowledges the need to build houses in wildlife-rich areas. Furthermore, these people should be aware of wildlife conservation and avoid killing wild animals. This ancient civilization goes beyond the boundaries of states, nations and continents, and is inhabited by many ethnic groups that can be assimilated or assimilate. (Rathi, 2017)
- Western Ghats: a region of tremendous biodiversity, the sites of regular human-elephant and human-leopard interactions, particularly in Karnataka, Kerala and Tamil Nadu.
- The Sundarbans: The combative human-tiger relations in this unique mangrove ecosystem can be largely attributed to the area's overlapping of human territories and the Royal Bengal Tiger's. (Effects of Climate Change, 2021)
- North-Eastern States: Elephant populations are large in many of these states, which also have densely populated human areas adjoining the forests. In their bid to reach food sources in the forest, which is short during the dry monsoon months in these regions, elephants break down bamboo fencing to enter human habitations.
- Central India: Regions in Madhya Pradesh, Chhattisgarh and Odisha display different manifestations of Human-Wildlife Conflict with tigers, leopards and elephants and other species.

Identifying the specific location of these hotspots is vitally important in informing targeted legal and policy interventions that help to mitigate conflict, and either allow or encourage the survival of species from both populations.

(C) Socio-Economic Impact

The implications of HWC for both socio-economics and on-the-ground conservation are huge and multi-faceted.

The most immediate impact, of course, is economic because it's really about crop and livestock depredation; it's about the loss of housing and, in the worst situations, of human life. These are very real economic impacts and, for people who depend on these areas for their livelihood, and especially when most of their source of income comes from the land, it can be devastating. There is also the psychological meaning of human-wildlife conflicts. There is this fear of conflict with wildlife – it's the fear that they feel every time they wake up in the morning and go out of the house. It can lead to resentment, it can lead to resistance of the communities. It might lead to local populations being against conservation. This is a huge hurdle for community outreach and community engagement, which is crucial to any conservation initiative.

There are several settings in which conservation can be the proverbial double-edged sword around issues of human-wildlife conflict. In one case, conflict incidents can raise both public and official sentiment for more proactive conservation measures. In another case, however, conflict episodes involving negative reactions to wildlife can result in negative perceptions of wildlife, dampening public sentiments towards conservation and, on occasions, triggering calls for retribution through killings and translocation of the supposed problem wildlife. These are moral dilemmas but there can be legal consequences too, with litigation seeking compensation for losses or remedial actions against perceived predations by wildlife. (Shah, 2021)

True to the name given to the movement, the principle was to ground reforms in a human-centred and development-oriented approach, ranging from the formal introduction of legal remedies to the formulation of policy interventions and the grassroots engagement with communities. That said, statutory provisions for compensation, as also for other conflict-mitigation modalities, have technically been in place by virtue of the Wildlife (Protection) Act, 1972. Victims of wildlife-caused damage are legally entitled to rights-based compensation, and there have been implicit acknowledgments in governmental interventions and court rulings of the fact that human-wildlife conflict works to undermine development and agrarian livelihoods and wellbeing among the poor, as revealed by recent research. Nevertheless, the success of applications of these legal provisions have often been undermined by the sluggishness with

which officials expedite payment for the provision of compensation, or by provision of inadequate amounts of compensation. Moreover, victims, conditioned by deep-seated fear of intimidation by well-resourced civil society constituencies (eg, in the recent case, People for Animals' activists have been instrumental in bringing action against Navneet for shooting a wild pig and Ramachari for killing a monkey that entered his house last year in Andhra Pradesh, and advocating that they be fined) also have scant awareness about these rights. Orientationally grounded in a human-centred understanding of the conflict, remedy-oriented judicial opinions have increasingly exhorted the authorities towards not just a more effective implementation of the legal provisions, but also enablement of local communities to have a say in the decision-making over mitigation. (Tripathi, 2021)

III. LEGAL AND POLICY FRAMEWORK

Over the years, India has enacted legislation that has increasingly protected its wildlife and environment. The Indian Penal Code of 1860 did not explicitly concern any wildlife conservation but did make it a crime to injure or kill animals. Yet other legislation introduced by the British Parliament, such as The Elephants Preservation Act of 1879, aimed at ensuring the protection of particular animals (in this case, elephants), and therefore declared it a crime to kill any elephant. The first specific legislation concerned entirely only with wildlife protection arrived later with The Wild Birds Protection Act of 1887, which restricted the keeping and selling of specified wild birds. The law was short-lived, however, and was superseded by a more comprehensive The Wild Birds and Animals Protection Act of 1912. Other measures were passed after that, such as The Indian Forest Act of 1927 that sought to consolidate laws pertaining to forests and forest produce; The Forest Conservation Act of 1980 that monitored activity that led to environment degradation.

Photo supplied by Arnab Das Recognizing the need for a comprehensive law on wildlife, the Indian Parliament enacted the Prevention of Cruelty to Animals Act in 1960 and the Wildlife Protection Act in 1972. It was under Article 252 of the Indian Constitution – on a request made by 11 states of India – that the Wildlife Protection Act was enacted in 1972, a *sine qua non* for the promulgation of a common law to protect India's wildlife in all parts of the country. The Wildlife Protection Act, 1972 envisioned twin goals: for endangered species across national jurisdictions, and for all species within protected areas.

'It bears reiteration that the wildlife protection laws have a long history ... and a profound place in our conscience,' stated the Supreme Court in *State of Bihar v Murad Ali Khan*, 'and legislative and judicial measures must soon take effect to bring to an end the constantly rising

environmental imbalance and environmental degradation which will, if not halted, ultimately be irreversible.’

The Wildlife Protection Act was soon amended in 2002, making sure that the king cobra – previously renowned for its deadly fangs and celebrated as the ‘king of snakes’ – wouldn’t have to fight for survival in an ever-longer list of protection needs in conservation. The act was amended to improve wildlife conservation, and ‘take care’ of all diseases and problems related to animals, wild birds and plants, in the interest of the ecology, environment and the ‘stability of the nation’.

1. The Wildlife (Protection) Act, 1972

The Wildlife (Protection) Act, 1972, with its strong provisions, signifies an important milestone in the history of environmental lawmaking in India, with the vision to uphold, preserve and protect the country’s biodiversity. Some of its important provisions and aims have been detailed below in the sequential manner as mentioned in the Act. (Dubey, 2015)

a) Objectives

Safeguard the Wildlife: For extending the utmost protection to the wild animals and birds and other wildlife in the country and for the maintenance and preservation of its ecological and environmental balance, as see further mentioned.

- Conservation of Habitats: To create an ecologically wide network of protected areas aligned to global and national targets including national parks, wildlife sanctuaries, conservation reserves and community reserves for conservation of the country’s natural habitat of wildlife.
- Regulation of the Hunting of Wild Animals: to regulate the hunting of animals for food and other purposes to prevent their over-exploitation and to maintain their natural population in the wild.
- Ban on Trade: To prohibit the illegal trade of wildlife and wildlife products so as to reduce the threat of extinction to endangered species.

b) Provisions

- Section 2: The definitions of key terms within the Act (e.g., ‘animal’, ‘hunting’, ‘wildlife’, etc), that explain the policy scope that applies.
- Section 9: No person shall hunt, attempt to hunt, or molest any animal specified in Schedules I, II, III and IV except under the circumstances and in the manner specified

in the Act.

- Section 18: Empowers the state government to declare as a wildlife sanctuary any area of ecological, faunal, floral, geomorphological, natural or zoological significance which may be protected, propagated or developed, for the purpose of protecting, propagating or developing wild animals, birds or wildlife animals.
- Section 35: Authorizes the state government to declare national parks, specifying the enforcement of more stringent conservation norms than in the wildlife sanctuaries; here the rights of people are far more limited.
- Section 38: Lay down the procedure of the constitution of the National Board for Wildlife, which is constituted to promote wildlife and forests conservation and development.
- Section 48A – Restriction on sale, etc., of trophies, etc., derived from certain animals: No person shall trade or undertake any commerce in any trophy, articles, carcass or any other part of orji-ji species or those fishes specified in this Act or imported thereof, or any article including trophies carved from ivory, other than that of domestic elephants or teeth or tusks of siren or walrus or hippopotamus or whale from any part of the world or any animal, animal article or articles which are protected and notified as such under state laws without license from chief wildlife warden of that state.
- Section 50 and 51: Give powers of search, seizure and arrest to officers; and provide penalties for offences against the Act, to give effect to the provisions of the Act.
- Section 54: Resolution of the issue of attempt and abetment The Act makes it an offence even if there is only an attempt or abetment of an offence, whether under the Act or otherwise.
- Section 61: ‘Deals with the power of the central government to make rules with respect to any matter for which provision is made by or under this Act, for the general policy and control of the central government in relation to forest hazards and seasonal hardships or with respect to such changes in the provisions of this Act as may appear to be necessary or expedient on account of any change in circumstances.’ In other words, it’s a clause providing flexibility and responsiveness to changing conservation circumstances.

These are enshrined in the gruelingly detailed sections and schedules of the Wildlife (Protection) Act, 1972, which sets standards for caring for India’s wildlife legacy and its

demands from future generations who seek access to it. The Act (2002) balances the conservation needs of wildlife with human needs and development. (Wild Life Protection Act: Implementation and Failure, 2022)

2. The Forest Rights Act, 2006

The Forest Rights Act, 2006 (Officially: The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006) is one of the landmark legislations in India to redress historical ignores and recognize rights of forest dependent communities over forest land and forest produce that they have traditionally used. Here are the main objectives and provisions of the Act, classified according to its sections.

a) Objectives:

- **Right to Recognitions:** To recognize and vest the forest rights and occupation of forest land in forest-dwelling Scheduled Tribes and other traditional forest dwellers who have been residing therein generously for generations but whose rights could not be recognized.
- **Safeguard of Livelihood and Culture:** to protect the livelihoods of forest-dwelling Scheduled Tribes and other traditional forest dwellers by vesting them with rights over forest produce which they have traditionally been enjoined to collect and use – rights that were recognized constitutionally under the 19th Schedule to the Constitution.
- **Conservation of Forest and Biodiversity:** To conserve biodiversity and ecological integrity, to further build the conservation regime of the forests and to provide for livelihood and food security of the forest dwelling Scheduled Tribes and other traditional forest dwellers.
- **Reinforcing conservation regime:** Adaptive management of forests integrates management and conservation goals and involves a two-way learning process between science and local knowledge and practices of forest communities and users. (Viswanath, 2018)

b) Provisions

- **Section 3:** – It lays down the nature and extent of the rights, recognized under the Act over minor forest produce, including the individual or common occupation of forest land for habitation or self-cultivation for livelihood; - Ownership of minor forest produce; - Rights relating to habitation or cultivation; - Rights to protect, regenerate or conserve or manage any community forest resource other than timber; - Other traditional

rights generally recognized;

- Section 4: Defining the procedure relating to recognition and vesting of forest rights, laying down the criteria for eligibility for such rights, the manner in which such claims may be made, and the authorities which may recognize and vest the rights.
- Section 5: ‘Gives traditional forest dwellers and gram sabhas (village assemblies) the ability to conserve wildlife, forest and biodiversity, uphold norms and traditions, and manage community forests.’
- Section 6: Provides a narrative describing the structure and specific functions of the committees designated at the village level, sub-divisional level and district level for the implementation of the process of recognition and vesting of forest rights.
- Sections 7 and 8: Mandate and outline the composition, functions and the process of election of the Forest Rights Committee at the village level.
- Section 12: Affirms the right to in situ rehabilitation and resettlement in instances where members of Scheduled Tribes and other indigenous perspective dwellers have been illegally evicted or displaced from forest land.

The Forest Rights Act, 2006, changed the course of forest governance, by including the rights of forest-dwelling communities in the conservation process. It recognizes the pivotal role forests-dwellers play, not only in the ecological balance of the forest and in conserving forests, but also in their rights to sustain their livelihoods, culture and identity.

3. National Wildlife Action Plan

The National Wildlife Action Plan (NWAP) provides the strategy for wildlife conservation in India. The current version of the NWAP (2017-2031) put human-wildlife conflict on the conservation agenda by stating that ‘Management of Human-Wildlife Conflict is a challenge, both for conservation and human welfare,’ and explaining that ‘A multi-pronged approach for conflict mitigation needs to be pursued including Habitat Improvement, research and monitoring and technology-based conflict management along with enhancement of compensation.’

a) Project Elephant, Project Tiger, and other specific conservation projects

flagship conservation projects such as Project Elephant and Project Tiger are credited with playing a largely positive role in the strengthening of laws towards protection of these keystone species and their habitats. Despite these triumphs, India has yet to transcend knee-jerk reactions where animal welfare and human needs come in conflict. This is evidenced by the ongoing

controversy over the need to cull stray dogs that are not vaccinated against rabies. Human-Wildlife mitigation strategies have invariably been developed and implemented as an adjunct to these flagship conservation projects. Thus, under Project Elephant and Project Tiger, there have been attempts to develop wildlife corridors that allow animals to roam between sanctuaries; there have been management plans to deal with hotspots of conflict between people and animals; and there have been initiatives designed to involve stakeholder communities in conservation efforts.

b) Project Cheetah

Cheetahs that were once widely distributed in India experienced an incredible and rapid decline in their numbers because of rampant hunting, decrease in habitat and a fall in their prey stock. After the last recorded sighting of a wild cheetah in 1948, India was declared cheetah free in 1952. Soon afterwards, the Government of India – in association with the World-Wide Fund for Nature (WWF), International Union for Conservation of Nature (IUCN), the National Chambal Sanctuary Project Authority (NCSPA) and the Zoological Survey of India (ZSI) – began the long-drawn out Operation Cheetah, or Project Cheetah, which aims to reintroduce the cheetah to the country.

Objectives

The focus of Project Cheetah was four-pronged: reintroducing the species not in isolation, but as part of India's steppe habitat; restoring India's steppe ecosystem to its multispecies glory, one of the most repressed ecosystems in the country; and developing a comprehensive model for the rescue of large carnivores in India. The Centre's initial threefold objectives were:

- **Reintroduction of Cheetahs:** To reintroduce cheetahs in a phased manner to ecologically viable habitats in various parts of India with a view to restoring the cheetah's historical range.
- **Ecosystem Restoration.** Promote restoration and conservation of grassland habitats throughout India, which are an important part of the cheetah survival corridor.
- **Biodiversity Conservation:** to maximize the cheetah's role as an apex predator to manage the trophic dynamics of ecological functions that contribute to biodiversity in grassland ecosystems.
- **Research and Monitoring:** Conduct research and monitoring to track and understand how cheetahs adapt to and spread out in this new area so that cheetahs can be well-established and grow in population size.

Implementation

India chose multiple sites throughout the country that could support and retain cheetah populations. It assessed these sites on the basis of habitat suitability, prey availability and minimal Human-wildlife conflict potential and thus, Kuno National Park in Madhya Pradesh was one of the first locations chosen for the reintroduction of cheetahs.

The captive cats were officially sourced from both Namibia and South Africa, and the various people and institutions involved ensured that there was international collaboration when it came to this pioneering project. Experts in cheetah biology and wildlife conservation architecture guided the scientific procedure of translocation.

Challenges

The reintroduction of cheetahs into India faced several challenges, including:

- **Habitat Readiness:** The capacity of the selected reintroduction sites to support cheetah populations based on the appropriate habitat conditions and prey base.
- **Human-Wildlife Conflict:** How we were going to handle the potential conflicts that arose between cheetahs and local human populations in areas where there was overlap between the cheetah habitat and the human habitats.
- **Genetic Diversity:** Maintaining genetic diversity in the introduced cheetah population as a long-term resource.

4. Convention on Biological Diversity

The Convention on Biological Diversity (CBD) is a broad, plurilateral treaty adopted during the Earth Summit in Rio de Janeiro in Brazil in June 1992. It entered into force on 29 December 1993, since when 196 countries, equivalent to all but five nations on the planet, have ratified it (as of when I last updated this piece, in April 2023). Its three goals are the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising from utilization of genetic resources, ‘in a way that promotes sustainable development and takes into account the needs and interests of present and future generations’. (Mathur, 2021)

a) Objectives

The primary objectives of the CBD are:

- **Conservation of Biological Diversity** for short to conserve and protect the variety of life forms on Earth, including ecosystems, species, and genetic diversity.

- **Sustainable Use of Components:** The sustainable use of components that foster biological resource management strategies and practices aimed at retaining their long-term sustenance where the management actions do not lead to long-term reductions in biological diversity and the ecological services provided by ecosystems.
- **Equitable Sharing of Benefits:** to ensure that the benefits arising from the utilization of genetic resources made available pursuant to this Protocol are shared in a fair and equitable way with the Contracting Party providing such resources.

b) Principles

The CBD relies on the principle that a state retains sovereign ownership of its own biological resources. This principle acknowledges national regulatory authority over access to genetic resources and the stewardship of biodiversity and sustainable use of biological resources.

c) Provisions

- **Article 8 (In-situ Conservation):** Parties shall, through appropriate and cooperative programmes, provide for the protection in situ of... species... natural habitation... and major ecosystems, as well as for the recovery of rare or endangered species... In-situ conservation acknowledges the value of wildlife in its natural setting and highlights the importance of diverse communities. Both the treaties stress the significance of strict penalties for poaching and illegal wildlife trade, in addition to the importance of education, public awareness, and foster cultivating an appreciation of wildlife in the general public.
- **Article 9 (Ex-situ Conservation)** Urges development of scientific principles for the conservation of components of biological diversity outside their natural habitat, such as in zoos, botanical gardens or seed banks.
- **Article 15 (Access to Genetic Resources):** The sovereign right of States over their own genetic resources means that the authority to regulate access to genetic resources rests with the State Party providing such resources, in accordance with its national legislation.
- **Article 16 (Access to and Transfer of Technology):** shall, subject to mutually agreed terms, provide for the access to and transfer of technology, including biotechnology, to developing countries, are particularly appropriate for conservation and sustainable use of biological diversity, with a view to promote its participation in such eligible technology transfer.
- **Nagoya Protocol:** A supplementary treaty to the CBD, adopted in 2010, designed to

provide a clear and transparent legal framework for the achievement of one of the CBD's three objectives – the 'fair and equitable sharing of the benefits arising out of the utilization of genetic resources.

5. CITES

It might seem peripheral, but the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) goes way beyond protecting the rights and welfare of individual animals and plants and towards the aim of ensuring that international trade does not threaten 'the survival of the species in the wild' – something India is party to. Again, adhering to CITES regulations is a way of preventing illegal wildlife trade that, along the pipeline of secondary human-wildlife conflict burden, more directly touches on one of the drivers of discontent in wildlife populations. (Conserve Energy Future, 2016)

a) Ramsar Convention

The Ramsar Convention on Wetlands of International Importance is important to wildlife conflict management as it focuses on the conservation, sustainable use and wise use of wetlands. Many wildlife conflicts occur in and around wetlands, which are crucial habitats for many species. The convention seeks to maintain the ecological character of wetlands by conserving their biological diversity, and by promoting sustainable usage lessons that can avert conflicts. It can help wildlife management by ensuring that wild animals stay in their own habitats, minimizing the need to enter human-dominated landscapes.

India has a robust legal and policy framework to protect wild animals and their habitats, but effective human-wildlife conflict management is hard to come by the formal welfare framework for wild animals in India is a conglomerate of national legislations, state law enactments, policy platforms, and international treaties. Although the origin and history of this framework was unorganized, the most recent and lasting version has been carefully contemplated. However, the laws and policies are not always easy to implement on the ground, and their effectiveness in conflict management remains limited. (Douglas & Alie, 2014)

IV. JUDICIAL RESPONSES

Courts, with their power to interpret laws and test their efficacy, have played a key role in defining the nature and scope of law and policy at play for the management of mitigation of Human-Wildlife Conflict in India. Acknowledging this role, the courts have over the past few decades, by their various judgments, not only further clarified the nature and scope of the existing legal jurisprudence, but have also at times advised the state and its Central Government

to undertake measures for the better protection of wild animals and for the safety and rights of human beings. In this section, we will examine some of these important judgments relating to mitigation of Human-Wildlife Conflict and consider the interpretation of these judgments and their implications. (Our Common Future, 1987)

In the leading judgment in the salience of issues of animal protection of animals including in situations of Human-Wildlife Conflict mitigation, *Animal Welfare Board of India v. A. Nagaraja*³, the Supreme Court of India balanced Article 21 of the Constitution, which addresses the rights of human beings, by finding that animals' dignity, and a just and humane treatment of them, is also part and parcel of the fundamental rights guaranteed in the Constitution. This judgment has wide-ranging implications for the protection of wildlife – legal conscience draws us towards an extension of the right of habitat needed for life to other species, too.

A third case-in-point is *T N Godavarman Thirumulpad v. Union of India*⁴, which has generated many orders over the years on issues related to protection of forests and wildlife. In them, the Supreme Court has extended the reach of the Wildlife (Protection) Act, 1972, and other environment laws, in making the state responsible for the barriers to human-wildlife conflict at a structural level.

For example, in the case of *Centre for Environmental Law, WWF-I v. Union of India*⁵, the National Green Tribunal (NGT) in India ordered the creation of an uninterrupted corridor for elephant populations in Sigur Plateau, Tamil Nadu. The decision recognized the responsibility of federal authorities in protecting the continuity of habitats, which is the only way humans can reduce human-elephant conflicts.

*Goa Foundation v. Union of India*⁶

This judgment pertained to the mining in the state of Goa and its impact on the wildlife habitats. The court restrained the state from granting renewal of mining contracts until a comprehensive environmental impact assessment is carried out. The court stressed that balancing of ecological consequences especially regard nature and wildlife protection has to be undertaken while granting any development project.

*Wildlife Trust of India v. Union of India*⁷

The case dealt specifically with a writ petition to the Supreme Court for opening 'elephant

³ (2014) 2 KLT 717 (SC).

⁴ (1997) 2 SCC 267.

⁵ (1998) 9 SCC 623.

⁶ (2014) 6 SCC 590.

⁷ Writ Petition (CIVIL) No. 50 of 2008.

corridors' in Tamil Nadu that could allow the free movement of elephants and reduce Human-Wildlife Conflict. The subsequent directions of the Court underlined the crucial role of wildlife corridors in the preservation of species and in preventing conflicts.

V. CONCLUSION

Human-wildlife conflicts in India is a complex problem at the intersection of environmental conservation and legal jurisprudence and human rights law. Conflicts arise due to the growing numbers of humans and their incursions into wildlife habitats leading to interactions and conflicts between humans and other animals. Conflicts bring about economic and physical losses to humans but are also a severe conservation concern due to threats to the existence of endangered species and our ability to maintain a balance of nature.

The response of legal and political action to Human-Wildlife Conflict in India draws upon a deep legal and policy infrastructure: from national law such as the Wildlife (Protection) Act 1972, the Forest Rights Act 2006, to policy frameworks such as the National Wildlife Action Plan, to conservation plans such as Project Tiger and Project Elephant. These legal instruments provide for the protection of endangered wildlife, the conservation of habitats, regulate human activities, and question notions of just and equitable uses of environmental resources. Another bold print has been left by judicial activism on its relation with law enforcement: from issuing path-breaking judgments on interpreting the scope of the law, orders to create wildlife corridors, advocating for the rights of animal kings, and safeguarding people's rights.

Nevertheless, effective management of Human-Wildlife Conflict in India suffers from implementation gaps, bureaucratic bottlenecks and deficient enforcement mechanisms, and policies related to economic growth and development further complicate the situation by creating conflicts between conservation and development objectives. Complex property-rights regimes and fragmented institutions can complicate the implementation of conflict management interventions designed to mitigate Human-Wildlife Conflict, and local communities remain unaware of both their legal rights and the remedies available to them. The weak institutional capacity of wildlife departments and conservation institutions further exacerbates the problem.

These require a holistic vision, a plan that is integrated and community-involving, an improvement in inter-agency coordination, easier procedures for compensation and mitigation, and local communities involved in the conservation process. It is a multi-pronged approach that includes an improvement in sustainable development practices and that respect wildlife habitats. It will benefit from the use of smart technologies in conflict management.

In summary, the legal and policy framework for mitigating human-wildlife conflict in India is

strong in theory, but far from comprehensive in practice. In order to ensure a better balance between human well-being and wildlife conservation, a collaborative approach to human-wildlife relationships among state governments, communities, conservationists and the judiciary is needed to fill implementation gaps, resolve chaotic policy contradictions and grant more autonomy to local communities. This way, India would be better prepared to deal with the increasing human-wildlife conflicts, in a more equitable manner.

VI. REFERENCES

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