

Perspective

# Human-Wildlife Conflict and Coexistence

Somya Singh<sup>1</sup> and Sanjaya Singh<sup>2,3,\*</sup>

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<sup>1</sup>Independent Author, Vishesh Khand, Gomti Nagar, Lucknow, Uttar Pradesh-226010, India.

<sup>2</sup> IEM (Independent External Monitor) with SEBI (Securities & Exchange Board of India), Mumbai, Maharashtra- 400051, India.

<sup>3</sup>BBNL (Bharat Broadband Network Ltd), New Delhi- 110023, India.

\*Correspondence: [sanjaysingh1km@yahoo.com](mailto:sanjaysingh1km@yahoo.com)

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**Abstract**

Man-animal conflict is a very complex issue which not only involves disruption of forest ecosystem but also a very weak legal support system while establishing wildlife corridors in the protected areas. Developmental projects have also taken a heavy toll on the very existence of wildlife and its symbiotic relationship with the forest ecosystem. The most common causes of human-wildlife conflict are livestock predation, crop raiding, loss of human life, animal death, damage to property, and injuries to people and wildlife. There are some valid reasons for increased man-animal conflicts in the recent past and they are changes in land use patterns (change from protected forest patches to agricultural, horticultural, and monoculture plantations) which destroy wildlife, livestock grazing, unscientific structures and practices of forest management in the country, allowing cattle to graze into forest areas and decreased prey base caused by poaching of herbivores leading to carnivores wandering out of forests in search of prey to indulge in cattle lifting and preying on human children.

**Keywords:** Man-animal conflict, Wildlife, Forest ecosystem, Prey and predators, Livestock, Mega-biodiverse country, Biodiversity, Monoculture plantation, Carrying capacity of the forest, Fuelwood,

**Introduction**

Whenever an incidence of wild animal ventures into a habitation or does crop/life depredation, debate/discussion on Human-Wildlife conflict starts all around. So before plunging into rallying cries of conservation or stating our opinions on 'cruelty for a cause', this will be proper to understand why humans and wildlife have reached the intersection of conflicts. It is proper if it is understand the reasons which led to the disruption of the peaceful coexistence of the species in the first place. Human evolution is fundamentally a story of interactions between humans and wildlife. The ability of humans to survive, in the face of competition from other species fueled the early stages of global domination of humans as 'super predators'. Effective vigilance, intelligence (tool, weapon making), and social adaptations like community living led to the reduction of threats from the much stronger and agile predators of the wild. Albeit humans topped the ecological pyramid to be super predators, respecting nature and coexistence remained innate. While humans and wildlife have had a long history of coexistence, however, the frequency of conflicts between them has risen in recent decades. Human-wildlife conflict commonly refers to tensions that occur between humans and wildlife wherein, actions by either harming the other. The most common causes of human-wildlife conflict are livestock predation, crop raiding, loss of human life, animal death, damage to property, and injuries to people and wildlife. This increase has mainly been driven by the increase in the population of humans on the Earth and our consequent activities of expansion into the wildlife habitats (expansion of cities, industrial areas, roads/railway tracks, and tourism), the inability of local stakeholders

and mediators to manage the conflicts, mainly beyond the boundaries of protected areas. Some other reasons for increased conflicts are due to changes in land use patterns (change from protected forest patches to agricultural, horticultural, and monoculture plantations) which destroy wildlife, livestock grazing, unscientific structures and practices of forest management in the country, allowing cattle to graze into forest areas and decreased prey base caused by poaching of herbivores has led to carnivores wandering out of forests in search of prey to indulge in cattle lifting and preying on human children. Such causes have made incidents like jackals, leopards, and tigers easily penetrate agricultural fields and encroach on human settlements to drag out goats, sheep, cattle, and other livestock. Animals have gained greater adaptability and resilience to their shrinking habitats which allows them to live close to human habitation.

### Man-animal conflict

The death toll in human-animal conflicts has been increasing with each passing day in our country. Mostly, these conflicts are related to attacks by elephants, tigers, bears, wild boars, etc. In some of the areas people scared of the increasing face-off are migrating to other areas by leaving their houses, homesteads, and agricultural lands aside due to threats to their lives and livelihoods by the wild animals. In an answer to a question in Parliament, the government admitted that in the last three years from 2019 to 2022, Human losses have also dreadful across the country and this has been found that human deaths on account of conflicts with wild animals are extremely high. Elephants killed 1,579 humans in the last three years namely, 585 in 2019-20, 461 in 2020-21, and 533 in 2021-22. Odisha accounted for the highest number of these deaths at 322, followed by Jharkhand at 291 (including 133 in 2021-22 alone), West Bengal at 240, Assam at 229, Chhattisgarh at 183, and Tamil Nadu at 152. During the period, 307 elephant deaths were also reported. Tigers killed 125 humans in reserve forests between 2019 and 2021, Maharashtra accounted for nearly half of these deaths, with 61. The numbers may be more due to unreported and unregistered cases. Linear projects and electrocutions have also damaged our forest ecosystem to a larger extent, the answer given to the Lok Sabha by the honourable minister for forest, wildlife, and climate change has admitted that between 2018-19 and 2020-21, 222 elephants have been reportedly killed by electrocutions at different places across the different states in the country, 45 elephants were killed by the trains, 29 by the poachers and 11 by poisoning by villagers. Tigers are not far behind and 29 tigers are reportedly killed by poachers whereas 197 tigers died under scrutiny in the year between 2019 and 2021.

**Table 1:** Tigers

	2019	2020	2021
Humans killed by tigers	50	44	31
Tigers: natural deaths	44	20	4
Unnatural, not poaching	3	0	2
Tigers death under scrutiny	22	71	104
Poaching deaths	17	8	4
Seizure	10	7	13

**Table 2:** Elephants

	2018-19	2019-20	2020-21
Humans killed by elephants		585	461
Elephants killed by trains	19	14	12
Elephants killed by electrocution	81	76	65
Elephants killed by poaching	6	9	14
Elephants killed by poisoning	9	0	2

**Table 3:** Elephants killed by electrocution

States	2018-19	2019-20	2020-21
Andhra Pradesh	2	5	1
Assam	9	11	13
Chattisgarh	6	2	7
Jharkhand	1	5	5
Karnataka	9	8	9
Kerala	6	4	2
Meghalaya	0	5	0
Nagaland	4	2	1
Odisha	24	9	8
Tamil Nadu	10	15	9
Uttar Pradesh	3	3	0
Uttrakhand	3	2	Information not received from states
West Bengal	4	5	10

### Discussion

Gandhi Ji once said “The greatness of a nation and its moral progress can be judged by the way its animals are treated” (Akbarsha et al., 2010). Indeed, the way we treat animals shows the way we view and treat people. The most recent tragic news about the death of a pregnant elephant on consuming a firecracker-stuffed pineapple in Kerala which was meant for wild boars that destroy agricultural fields led to immense outrage and debates. It does not mitigate the brutality of whether the explosive-filled fruit was meant for the boar or the elephant. An incident as such helps a great deal in forcing us to examine our attitudes towards animals in general.

Humans have turned so materialistic that even our relationship with animals depends on what we want and how ultimately, we benefit from them. Our relationship with wildlife can be categorized under the following materialistic views:

- a) How are they useful to humans? (meaning: how can we exploit them for our use),
- b) How rare are the species, this triggers our conscience in guilty ways since they are disappearing because of us,
- c) How much of a threat are they to humans? (which means either we consider them pests or are afraid of them). In the elephant’s case, her death was viewed as ‘unnecessary’ since it did not add to the betterment of human lives. It was an Asiatic elephant, an endangered majestic beast that triggered the consciousness of people sitting in urban areas, far from reality. In the countryside, such incidents happen very often. Had the boar died, there would not have been an outrage of this kind. This is because our relationship with animals in the 21<sup>st</sup> Century is about us, not them! It is about how we anthropomorphize them. A study on the deterrence adopted by the villagers in Kenya is shown to be very successful. The community-based approach used by the villagers was very simple and affordable for example, early warning alarms, the use of hot chillies, loud noise makers, watchtowers, and spotlights were very effective tools to deter elephant raids (Graham et. al., 2009).

India is one of the 16 mega-biodiverse countries with 769 protected areas spreading over an area of 162072.49 km<sup>2</sup> which constitutes 4.93% of the total recorded forest area. These protected forest areas fall under national parks, wildlife sanctuaries, conservation reserves, and community reserves. Displacement of people living inside protected areas and conservation are two issues that are intimately related to each other and have a bearing on the man-animal conflict. Displacement and people living inside the protected areas have a mixed result but displacement with proper forest management has a better chance of ecosystem recovery. Wildlife corridors have become very important in the diminishing habitat. Corridors are necessary for many reasons and one of them is genetic flow in the animal's reproduction process. The wildlife habitat is shrinking very fast on account of rapidly increasing industrial and infrastructural development, especially around forests and protected areas. Besides, the fragmentation in habitat there are, however, no strong statutory provisions to establish and protect them. Therefore, there is a need for strong legislative provisions for corridor establishment and their management thereafter (Srivastava et al., 2016). The Central government has failed to do justice to the crucial ministries like forest, wildlife, and climate change by allocating a meagre Rs 3,030 crore in 2022-23. Total demand under development of wildlife habitat for 2021-22 is just Rs414 crore, which is not enough as compared to Rs 473 crore in 2019-20. The demand for the forestry and wildlife sector was Rs 672 crore in 2019-20, which has been reduced to Rs586 crore in 2021-22 and this shows that this sector is relegated to the back seat despite forest and wildlife being extremely important sector which forms our lifeline.

### Conclusion

India is losing its forests very fast. It has a little more than 700 fragmented protected forest areas of which 70% fall under elephant reserves and 40% are meant for lion ranges. 35% of the tiger areas are outside protected areas (Gross et al., 2021). The fragmentation of forest areas and lack of animal corridors have compounded the problems to an extent beyond our management. The optimal foraging theory of forest ecology states that wildlife tries to maximize energy uptake with minimum time, effort, and risk to their lives. To work towards solutions that maximize conservation success, it is essential to include positive discussions, coexistence, and attitudes of tolerance towards wildlife. Increasing farmer tolerance by repelling farm-invading species through traditional and natural means could help in improving coexistence. Introducing species like porcupines (according to the ecological conditions of the particular place) in fenced areas. Newly emerging technologies show promising results in managing conflict, coexistence, and conservation at the same time. Texting is used as a method of Early Warning System in alerting the farmers about elephants in the Western Ghats. Animal tracking collars with SMS chips automatically send text messages to residents if big animals approach. Smothering food substances disliked by animals like chilly and peppers helps in driving away animals, honeybees and other varieties of bees also act as natural repellents. A study was carried out to understand the problems of man-animal conflict and its mitigation after having surveyed 5,000 households across eleven reserves in India and it finds that crops were destroyed to the extent of 71%, 17% of live stocks were killed and 3% of humans were killed by wildlife. Households deployed 12 mitigation measures with nighttime watching, scare devices, and fencing used the most but this again varied in different states (Karanth et al., 2017). Another study on Man-Animal conflict with special reference to Kashmir was carried out by a group of researchers and it finds that rising population and disruption in forest landscape has led to a situation where man-animal conflict has deepened beyond a point of no return. The decadal population growth of Jammu & Kashmir is 23.64% and the transformation of forest areas into agrarian areas or urban settlements is a consequence of increasing demand for land, food production, energy, and raw materials leading this zone to a man-animal conflict (Habib, 2015). There is a lot of emphasis on man-animal conflict today but the current management practices to find a solution are highly inadequate compared to the scale of problems India is facing. Some measures are taken but their implementation is in a piecemeal manner, primarily with just a conservation focus. To reduce human-wildlife conflict, we must reassess the relationship—and especially the direct interactions—between people and wildlife to improve our coexistence in the future. We need to adopt

approaches that identify and address the deeper, underlying causes of conflict while developing systemic, context-specific solutions with affected communities as active and equal participants in the process. Our increasingly connected planet offers us abundant opportunities to consider how we can expand the zone or influence of human-wildlife conflict. There is a need to ask tough questions like whether is it possible to improve our understanding of the ecological, economic, cultural, institutional, political, social, and technological factors necessary to promote human-wildlife coexistence at the societal level.

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