

# Lessons from human-wildlife conflicts

**Humans and wild animals have  
to share common space**

Only a dramatic shift in the understanding of policy makers, media, local people and conservationists can bring down losses to both humans and animals, say **Vidya Athreya** and colleagues.



*A female leopard plays in Dachigam Wildlife Sanctuary near Srinagar. Jammu and Kashmir has come up with people-supported policies to handle conflicts involving wild animals. PHOTO: AP*

India is a fascinating country. Not only is it home to the largest number of languages, religions and cultures, it also supports some of the richest biodiversity areas in the world. If we consider just the large carnivores, India has four species of large cats, four bears and six in the dog family. If we compare this to all of Europe, they have only four species of large carnivores. Even at a human density of more than 300 people per sq km and severe pressures on land, India still retains most of its wildlife species, even the potentially dangerous ones. The reason might be due to the tolerance Indians show for other life forms. It is

evident in the way animals, domestic or wild, are positively incorporated into their culture, religion and life. Tolerance is something we take for granted but is required for the persistence of the charismatic, big wildlife. Simply put, wild animals will remain only if the local people let them.

In rural North America and parts of Europe, wild carnivores like the wolf and bear often invoke negative sentiments among the local people. These animals were virtually wiped out by the mid-20th century due to State-supported extermination programmes where rewards were offered for each carnivore killed. This mindset changed



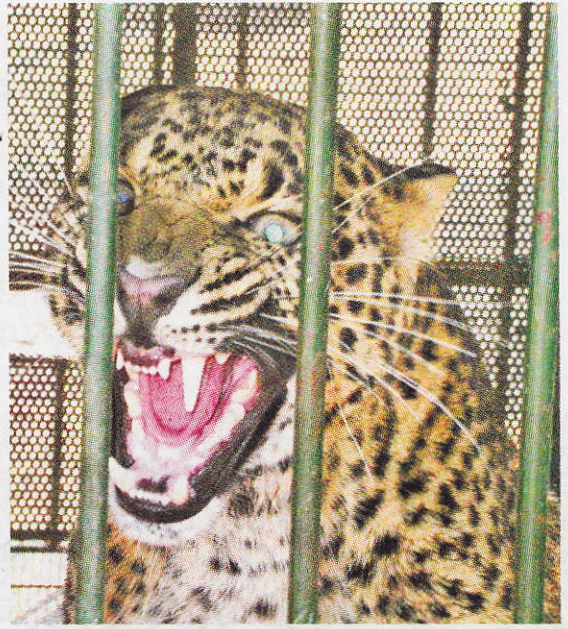
and the focus has shifted to conservation. As a result, the wolves, mountain lions, and bears, are all making a slow comeback. In the meantime, the local people who had forgotten how to live with these animals now protest strongly against their return. In India, the extermination of a dangerous species was never part of the ethos. Although wild animals were hunted for sport or food, the intention has never been to wipe out the entire species because they were considered dangerous. In fact, even today many tribal societies worship animals and regard losses to wild animals as part of nature's cycle. This tolerance is deep-rooted in India's society.

What can change this however, are attacks on humans by these animals. Although thousands of people die due to road accidents and 30,000 die from rabies transmitted by domestic dogs each year in India without inducing much comment from society, deaths caused by elephants, tigers or leopards provoke a public outcry and receive glaring media coverage. In the face of administrative apathy and policy constraint on action, such attacks result in retaliation by the local people towards the entire species. So when leopards kill livestock and people have to deal with a non-functional administrative mechanism and time-consuming compensation schemes, frustration often leads them to resort to poisoning of any leopard in that area.

### Long-ranging movement

This problem of human-wildlife conflict will never be resolved in India unless there is a drastic shift in the understanding of the policy makers, media, local people and conservationists. Even today we expect wildlife to live only in our national parks and wildlife sanctuaries. However, these comprise only five per cent of the area of India, making it impossible to confine all our wildlife inside these small islands of forest. To compound the problem, all the large wildlife species are biologically programmed to move large distances. Information from radio-collared elephants shows that they regularly move from West Bengal to Assam and back again; dispersing tigers have moved 400 km; Asiatic Lions move over hundreds of kilometres from Gir Sanctuary to other areas outside; leopards have also been seen to move more than 100 km. When moving across such large distances, these animals do not have any option but to use human-dominated landscapes.

We humans even "assist" these movements by



*A leopard involved in conflict, lucky to be alive after capture.*

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providing food to these animals outside the protected areas. For animals like the deer, monkeys, elephants and wild pigs, crops provide easy food whereas the large cats, wolves and bears are attracted to the cattle, goats, feral dogs and pigs in our countryside. This overlap in space usage between potentially dangerous species of wildlife, and humans sets the stage for conflict. The people who are affected are not like you and me, but poor, often marginal people who rely on farming, animal husbandry and dairy farming for their livelihoods. How the conflict plays out depends on our management of this situation.

Wild animals are inherently scared of humans and attacks are usually a result of accidents, when man and animal bump into each other in difficult situations. The response of a frightened cornered animal is to attack and then flee. However when a wild animal chases the person with the intent to kill, and drags or eats the body, then the matter





*In some countries where carnivores are making a comeback with conservation support, local communities have gone back to the days of sheepdogs for protection.*

takes a very serious turn. These instances are an exception rather than the norm. Recent research on elephants and large cats shows that intentional attacks are usually due to biologically inappropriate methods being used to deal with these animals. If the situation is managed well, human deaths can be largely avoided.

### **The leopard example**

Take the case of the leopard in India. Since it is more common than the endangered tiger and Asiatic lion, it is implicated in the largest number of attacks on people. In fact its name is often synonymous in the media with a man-eater. What is interesting is that for the most part leopards live without attacking people. Our recent work has found a density of 12 adult leopards in 100 sq km living among human densities of 200 people per sq km, in a human-dominated landscape devoid of forests. No human death has occurred here due to leopard attacks. More interestingly, we have found that attacks on people are an aberration governed by complex factors which require us to increase our level of understanding.

Leopards are the most adaptable of the large cats and typify wildlife that lives outside forests.

Leopards have always lived outside forests, be it tea gardens, fringes of forests, in croplands, and they have been reported even from urban areas. Since we have not yet accepted that non-wilderness areas can support wildlife, the public, managers and media expect all leopards to be confined within forests and so leopards found outside forested areas are often trapped and moved to a nearby forest. Our work also found that leopards which had been living in village areas without attacking people started attacking people when they were released away from their territory. This was likely due to the stress they face during capture, release in an unknown area, and as we also found many instances, of translocated leopards homing back to where they were originally caught.

### **Homing instincts**

Increasing research evidence is indicating that large cats have strong homing instincts; a leopard in Africa walked back 400 km to its site of capture, taking a year to do so. In a populous country like India, a lost leopard navigating through unfamiliar territory is a recipe for disaster. Our findings also indicate that most sites which have



chronic intentional attacks on people by leopards are within 100 km of release sites. Furthermore, it appears that all areas where leopard attacks on people occur have some form of intervention; either capture and release or killing of the leopard. Uttarakhand is a good example of this. Since British times leopards have been killed in large numbers in this State and large numbers of people have been killed by leopards as well. This should be a wake-up call that this management strategy is not working and we need to change the way we work so that human lives can be saved (not to mention the lives of many leopards).

### **J & K shows the way**

With their knowledge base far superior to what is available in India, countries in Europe are devising policies to deal with carnivores that do not understand man-made administrative boundaries. In India, for the most part, the lack of political will has resulted in an absence of radical shift in policies which is necessary to ease conflict. However, some States are showing the way forward. Jammu and Kashmir witnessed severe human wildlife conflict in the last three years. A hundred people were killed and about 1,000 injured in incidents involving leopards and bears. The conflicts mainly occurred outside, among orchards, crop fields, villages, townships and even edge of cities and not inside Protected Areas. Abundant feral dogs and presence of thick vegetation allow leopards to live close to humans, while easy fruit availability and presence of garbage dumps attract black bears. Confrontations between the humans and wild animals lead to loss of human and animal lives.

Given the severity of the situation, the Forest Minister of the State, Shri Mian Altaf Ahamad, took personal interest to find a practical and workable resolution of the problem and a strategy to involve the community. The outcome is expected to be a novel one and a community-supported plan at that. The solution drafted by the Department of Wildlife Protection, Jammu & Kashmir aims at involving the people of the villages facing the most problems. The Department has identified 100 high conflict zones (villages) and 50 moderate conflict zones (villages) based on con-

flict records. Five youths from each village will be put on engagement rolls and will form the interface between the Department and the village at the very first appearance, strike or unfortunate incident involving an animal. In case of a conflict incident this group will be trained to manage the situation until the Department's fully-trained men and machinery reach the spot. This will not only ease the situation for the handlers to attend to their job smoothly but will ensure the safety and security of the human life and property and the life of the precious animal too. This initiative will also bring the villagers into the decision-making process and increase their sensitisation towards the issue of wild animals. This development only underscores how political will is necessary to bring about positive change to people and wildlife, both suffering from losses due to conflict.

### **Europe's efforts**

Can we get the wild animals to live only inside man-made parks?

The heart of the problem lies in the fact that we have not yet accepted that humans and wild animals have to share common space in a country like India especially when potential food is abundant near human habitations. Other countries have started thinking about this issue. The recent return of large carnivores into countries in Europe where they were wiped out from has fuelled problems with the local people who do not want these animals in their neighbourhoods. To deal with these problems, many countries in Europe have devised specific policies. Firstly, they have invested heavily in research outside the protected areas to understand the root causes of conflicts, of both an economic and social nature. Secondly, there has been considerable investment in proactive mitigation measures to protect livestock from attack. In some cases this involves a return to age-old methods involving shepherds and their dogs, while in other cases it involves the use of modern methods like electric fencing. Thirdly, the payment of compensation for damage once it has occurred is retained, but the system is designed to be rapid, transparent and fair. Fourthly, governments have invested heavily in establishing arenas where local people and management agencies can

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*A gaur in an estate. The challenge is to understand animal behaviour and reduce conflict possibilities.* PHOTO: VIDYA ATHREYA

meet and discuss issues. Finally, management agencies are authorised to adopt flexible approaches to dealing with large carnivore conservation issues.

The present attitude of the Indian administration is largely authoritarian with respect to the local people. This has to be changed to a sympathetic one. There is also a lack of flexibility in adapting to local situations or specific events. A combination of assistance in case of loss, incentives to the local people for living with the conflict-causing species, combined with a combination of strict enforcement of laws and rapid and appropriate responses to serious cases like man-killing are needed to secure the well-being of both people and leopards. The focus has to be on prevention and not on knee-jerk reactions. Incentives should be provided to the people who tolerate these species in their area. In the case of the large cats, subsidies in the form of protection sheds for their livestock can be given to people to decrease the accessibility of potential prey, making these areas less attractive for leopards.

This also includes cleaning up our country with its abundant garbage that attracts dogs and pigs which in turn attract leopards, wolves and hyenas.

The media also has to be sensitised about the potential consequences of its reporting style. Often media only report man-eating or man-killing stories which can have serious negative impacts on tolerance levels of the local people who have always lived with these species. This leads to the demand for inappropriate management actions, which in turn can have unfortunate consequences and may even intensify conflicts. None of this will help without both a philosophy and a policy that accepts that we have to share space with wildlife in our country. Only then will we start devising methods which will decrease losses to both humans and animals.

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