

Locals Perception on Leopards and Leopards Mortality in Karnataka, India

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Contents

Chapter 1. Introduction to leopard-human conflict, local's perception on leopards and leopard's mortality

Chapter 2. Discussing leopard's mortality, age-sex-conflict relations and mortality distribution across areas

Chapter 3. Understanding local's perception

Graphs

2.1 Sex of the death leopards

2.2 Age of the death leopards

2.3 Administrative (Circle-wise and division-wise) distribution of death leopards

3.1 Figure showing locals perception on leopards

Chapter 1. Introduction to leopard-human conflict, local's perception on leopards and leopard's mortality

Introduction to Locals perception and Leopards mortality

Understanding leopard-human conflict trend in Karnataka is a challenge, one, because most of the locals who lose livestock are shepherd who grazed their stock in the forest, second, because many of them set up temporary home inside the forest minimizing interaction chances, and third, they seldom report their stock loses to the forest department. The data collected so far indicate that there is a big gap in their relations to the forest department, many of them are even unaware of forest department's existence. While we explained the scheme of compensation and its procedure, they are happier in shifting the grazing location once a livestock is killed, assuming it protects from further attack. Compensation process involves complex paperwork; the present process neither encouraged them from applying where they have to leave their stock un-attended, nor guarantee its approval even if applied. Complaints of delayed compensation are numerous; sometimes they become aggressive while we explained compensation process showing trust deficit.

Leopards adapting to rapid habitat lose, forest areas colonized by humans, rapid urbanization and limited prey are collective factors causing conflict. Leopards, due to limitation in wild prey distribution, attack domestic animals. Locals adopt advanced technique of animal husbandry minimizing success in hunting domestic prey. Even if it hunts, poisoning carcasses to kill leopards occurred in few instances. Conserving leopards in locals grazing space remain a challenge.

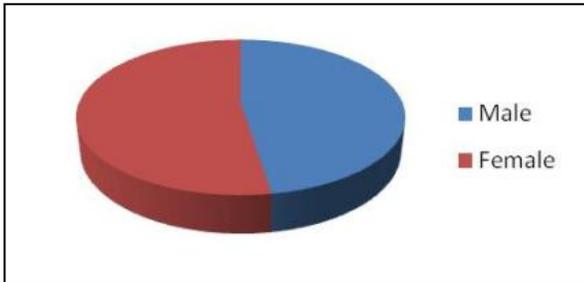
Leopard population has been pushed and marginalized into isolated and fragmented hilly landscape, surrounded by human settlements. Leopard mortality record is alarmingly high. Apart from population isolation, it is further threatened in many ways due to conflict. It gets killed if it strayed into human colonies and trapped and shot in the forest. We believe competent authority and wise policies can reduce the level of conflict. During 2009-10, 88 % locals believed that they don't want to kill the leopards, however, local's view changes during awareness programme 2010-11. Dealing leopard-human conflict is more challenging especially when leopards attack humans. Emotion ran high and needed competent authority to control mob. In terms of ferocity of animals, bears outscored leopards with most locals believing bears are more dangerous. Locals perception forms based on animals' ferocity towards human and extent of injury it can cause. Leopards, despite attacking livestock, generally shy away from humans, hence considered less dangerous to bears.

Conflict attention varies across areas; leopard related conflict in remote areas gets less attention as compared to leopard related conflict in towns and cities. Frequent straying into human habitation exposes leopard's vulnerability.

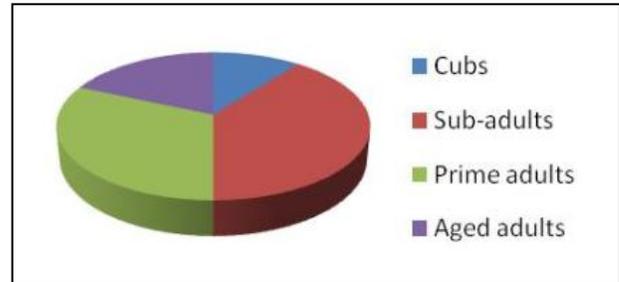
Chapter 2. Discussing leopard's mortality, age-sex-conflict relations and mortality distribution across areas

Results on leopard's mortality

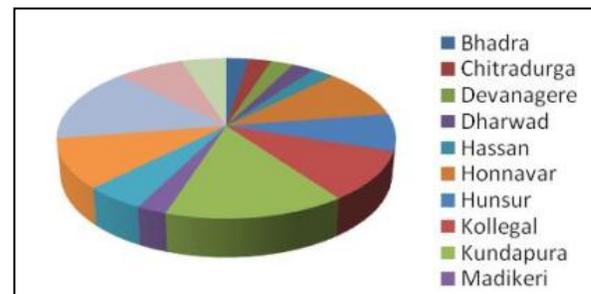
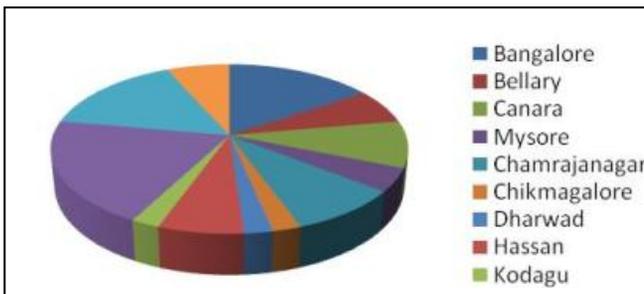
2.1 Sex of the death leopards



2.2 Age of the death leopards



2.3 Administrative (Circle-wise and Division-wise) distribution of death Leopards



No significance difference was observed in leopard's mortality-sex relations and the data suggests that both male and female are equally prone to conflict related mortality. While 21 female leopards died between 2010 and 2011, 19 males were reported death either under natural or unnatural circumstances.

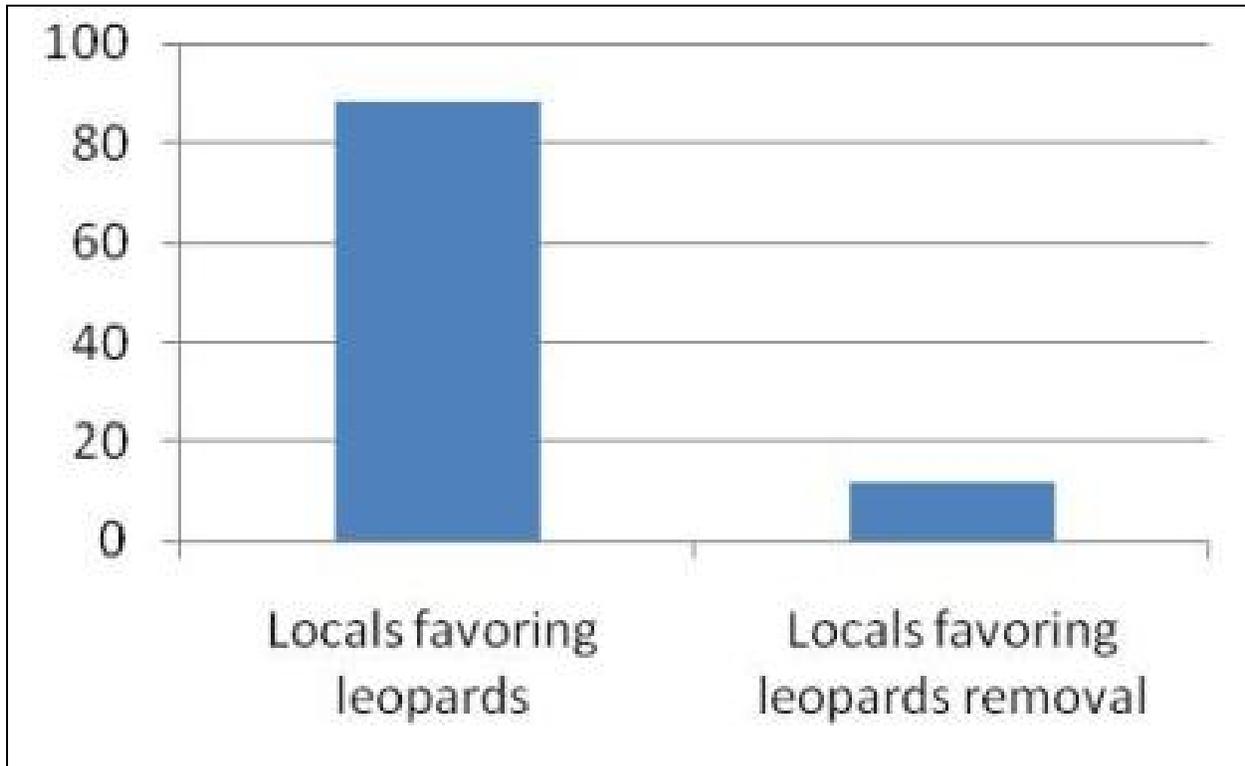
Conflict related leopard's mortality was reported more frequently in Bangalore, Mangalore and Mysore circles. It either confirmed high leopard density or presence of conflict-driving factors such as habitat loss and low prey base. The area like Dharwad, with rapid urbanization and low forest cover, may support low leopard density, hence, less mortality records. Despite having low death records, area like Bellary may support sizable leopard population. Leopards in these areas survive in good habitat condition of rocky hills, that favors hunting and kill conservation. Local's livestock also supplement leopard's diet.

Intra-specific territorial exclusion and search of new territory might result into conflict and death of higher sub-adult leopards 39.5 %. Cubs found in agro-farm were either rescued or died due to shock and heat. Prime adults comprised 31.6 %, however, died mostly in aggression and fights, gunshot, trapped or fallen into man-made well.

Chapter 3. Understanding local's perception

Local's opinion about leopards

3.1 Figure showing locals perception on leopards



The study focuses on quantifying total livestock losses and found that shepherd bear maximum losses. Despite losing livestock frequently, they favor leopard's presence. Their livelihood is livestock grazing and spent their time in the forest where leopard lives. Forest associated works make them believes that leopards are part of their system. They also develop better traditional strategies to protect their livestock. Their livestock group size is large enough that neither they mind losing few individuals nor bother to complain and apply compensation. They believe in shifting their animal stock from the site of the attack, believing it protects from further attack.

88.2 % locals, mostly shepherd don't want to kill leopards, however, during second phase of the study, locals favoring leopard's removal increases. Some local villagers pre-assumed leopards as dangerous and be afraid psychosis. Despite we care to explain some do's and don'ts to them, they prefer leopard's removal. They showed less tolerance towards leopards and never like leopards in their space. Even if leopards never harm them or attack livestock, sighting leopards in their vicinity prompted them to attack the animals.

Apart from various legal conservation measures, future conservation of leopards will depend on how local's attitude could be shaped that showed more tolerance. Present study showed wide

gap between locals and forest department; integrating locals in departmental works will positively impact on conservation. Leopard's deaths, arising due to wire-trapped, gunshot, fallen into well were recorded. It is required to bring down un-natural death of leopards and we believe local's co-operation and sharing conservation responsibilities with them, integrating locals in various Govt. sponsored wildlife conservation programme, could be beneficial