

CHAPTER 6: ASSESSING THE SLOTH BEAR ATTACKS

Human wildlife conflict has emerged as a major challenge to conservation efforts as human populations grow and compete with wildlife for space and resources. Although the broad causes and effects of human wildlife conflict share similarities, the nature and intensity of conflict often varies with the biology of the wildlife species concerned, its distribution relative to critical resources and human occupied spaces, and the social and economic characteristics of human communities experiencing conflict (*Distefano 2003*). Attacks on human beings by Sloth Bears, Leopards and Wolves are the most common of all man-animal conflict in Mirzapur forest division.

In the forests of central India, the sloth bear is one of the most dangerous wild animals (*Pillarisett 1993, Rajpurohit 1996*). Humans compete directly with bears by consuming the bears' food resources (*Rajpurohit 1996*). Because of extensive damage to already degraded habitat and collection of Non-timber forests produce (NTFP) by the locals, bears face a shortage of food resources and direct competition with humans for common food resources (*Murthy and Sankar 1995, Rajpurohit and Chauhan 1996*). Some species of importance to bears are also collected by villagers, including flowers and fruits of Mahuwa, and fruits of bel, char (*Buchanania lanzan*), jamun, and tendu (*Diospyros melanoxylon*). Collection of NTFP not only disturbs bears but also limits their availability for bears (*Bargali et al. 2004*).

They are unpredictable, especially females with cubs, which will attack humans readily if they perceive their cubs to be threatened (*Prater 1980, Pillarisett 1993*). However, most of the sloth bear attacks are defensive in nature only and it stops attack when the person falls down or become senseless. *Bargali et al. (2005)* reported that individuals who fought off the bear were seriously hurt and sometimes died from the attack. The suddenness of sloth bear attacks more closely resembles attacks by grizzly bears in response to surprise encounters with humans (*Herrero and Fleck 1990*). Except few cases, most of the attacks in Mirzapur happens in early morning hours only. There are three reasons for this- villagers go for defecation in early morning hours to areas near to water streams, for collection of Mahua fruits and fuelwood in early morning hours. In dry seasons, the bears often visit nearby villages in search of water and fruiting trees (especially Mahua) which overlaps with the same timing. While most of the attacks happen during collection of Mahua, one attack is reported while defecation and two attacks on women were during afternoon when the women were returning with head load.

Table 9 Reports of man-bear conflicts in Mirzapur which are reported during 15th October, 2015-15th April, 2016

#	Name	Age-Gender	Fate	Place	Forest Range	Purpose	Date	Time (Approx.)
1	Heeramani Kol	40 M	Injured	Banjari Kala	Dramadganj	Defecation	12/4/2016	05.00 am
2	Vikesh Behelia	40 M	Dead	Banjari Kala	Dramadganj	Mahua collection	11/4/2016	05.00 am
3	Gokul Maurya	45 M	injured	Banjari Kala	Dramadganj	Mahua collection	11/4/2016	05.00 am
4	Sunil K. Yadav	35 M	Injured	Bhavanipur	Sukrit	Mahua collection	3/4/2016	03.00 pm
5	Jarauti Devi	40 F	injured	Rajapur	Marihan	Fuelwood collection	25-01-2016	12.30 pm
6	Panna Devi	55 F	Injured	Sarsawa	Patehara	Fuelwood collection	28-10-2015	12.00 pm

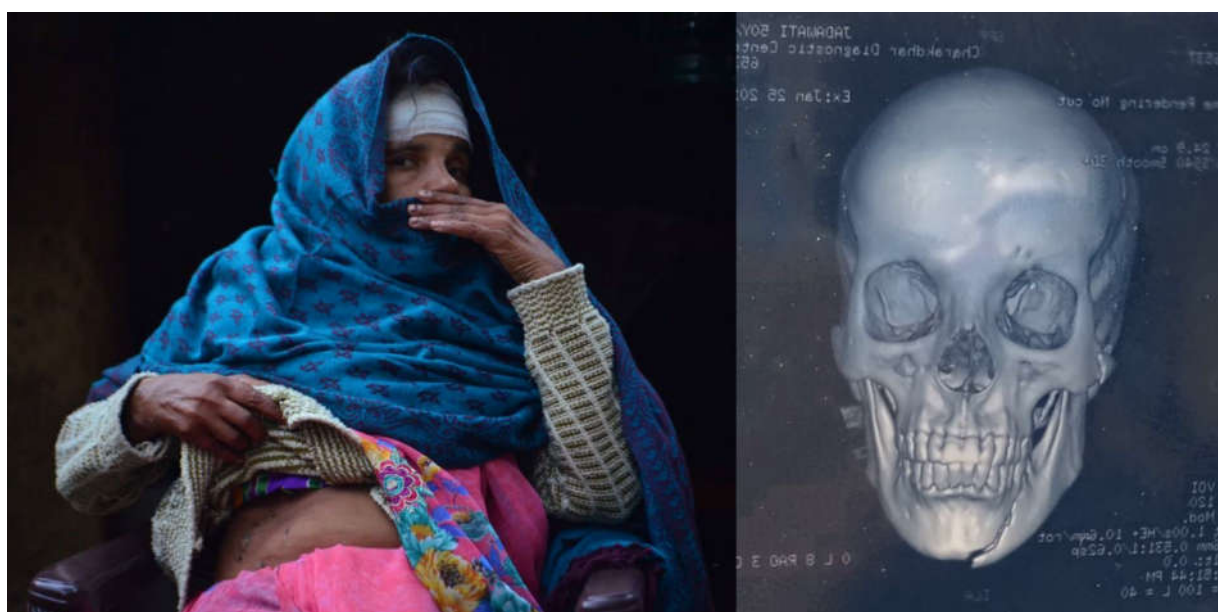


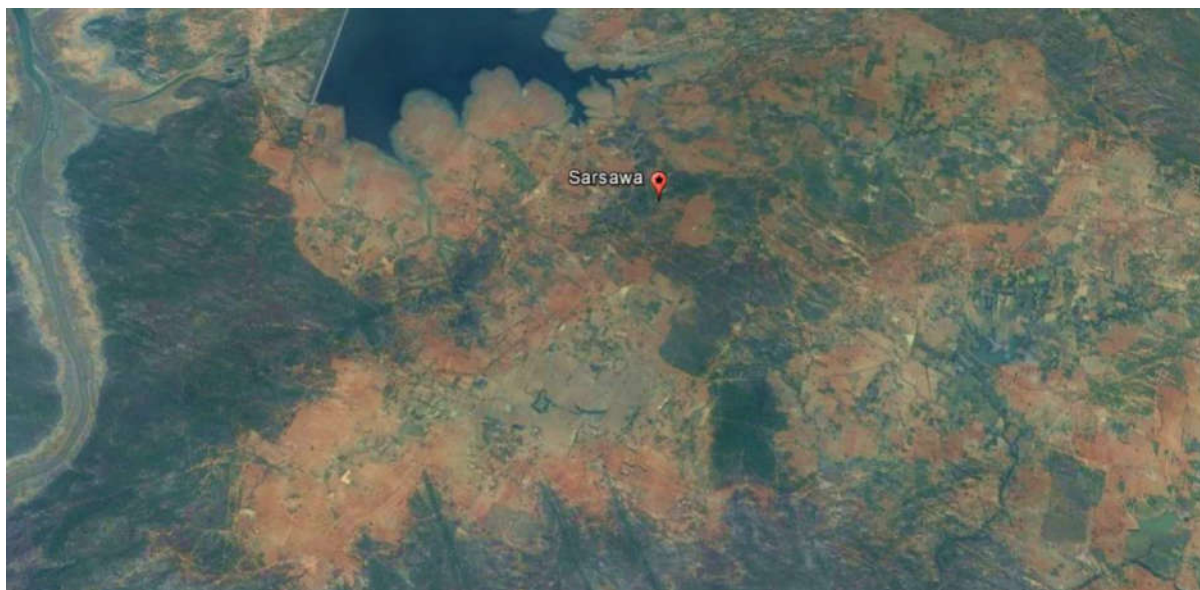
Image 31 Jarauti Devi, who was attacked in Marihan forest range in January, 2016 with X-ray of the fractured jaw (Photo: Mukesh Kumar)

The above mentioned places- Rajapur (Marihan), Bhavanipur (Sukrit), Sarsawa (Patehara) and Banjari Kala (Dramadganj) are the most active man-bear conflict affected areas. Sarso-Semri (Marihan) is also known for man-bear conflicts. Since past several years, nearly all of sloth bear attacks are reported from these selected regions only.

While the man-bear conflicts in Marihan, Sukrit and Patehara is confined to forest areas- most of the man-bear conflicts in Dramadganj is reported to have occurred near the villages.

After this survey and analysis of regional topography, the reasons for the man-bear conflict can be correlated to several factors and can be avoided by taking some measures. Following are the possible explanation of man-bear conflicts in two landscapes reported recently.

6.1 EXPLANATION FOR ATTACKS ‘INSIDE’ FORESTS OF PATEHARA, MARIHAN AND SUKRIT



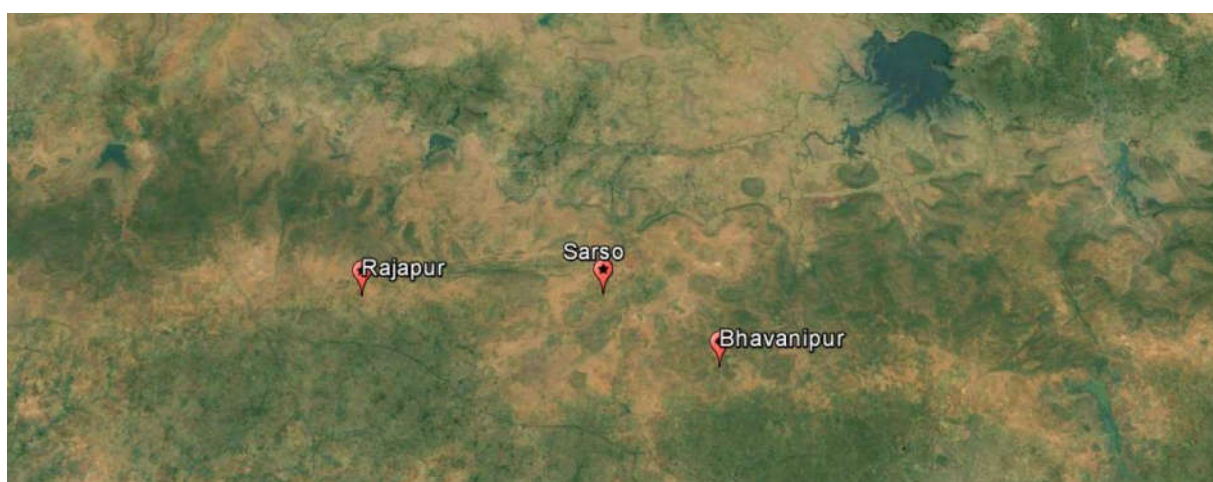
Map 18 Location of Sarsawa, Patehara Forest Range on Google Earth imagery

In Patehara range, as discussed in previous sections, the connecting forests between Leduki and Imliapokhar beat is now highly disturbed and significant portion is converted to agricultural lands. As a result, the Imliapokhar beat is not only becoming degraded but is also becoming isolated with its historical forest range. This has caused significant disturbance to wildlife habitats, constriction of home range and restriction to movement of bears. The woman who was injured in October, 2015 was attacked in Sarsawa which is part of this degraded forests in Imliapokhar beat.

6.2 EXPLANATION FOR ATTACKS INSIDE ‘FORESTS’ OF MARIHAN AND SUKRIT

Sarso-Rajapur and Bhavanipur villages lie on the periphery of forest areas of Marihan range and Sukrit range and are separated by Chunar-Rajgarh road, Chunar-Churk rail link and an under-construction canal in between. The sloth bears which once used the entire Marihan and Sukrit range are now divided into several meta-populations due to loss of the connectivity between these forest areas. With increasing disturbance, fragmentation and landscape change in Marihan and Sukrit range—the bears are forced to live in the remaining small patches of forests which are not only interspersed with villages and agricultural farms but are also facing huge competition of resources from local villagers who are dependent on these small forest patches for their fuelwood, livestock grazing and other non-timber forest produce (NTFP) requirement. It is because of this reason, the forests in these forest range are very much frequented by human beings and result in unwelcomed confrontation with bears which often proves dangerous for both of them.

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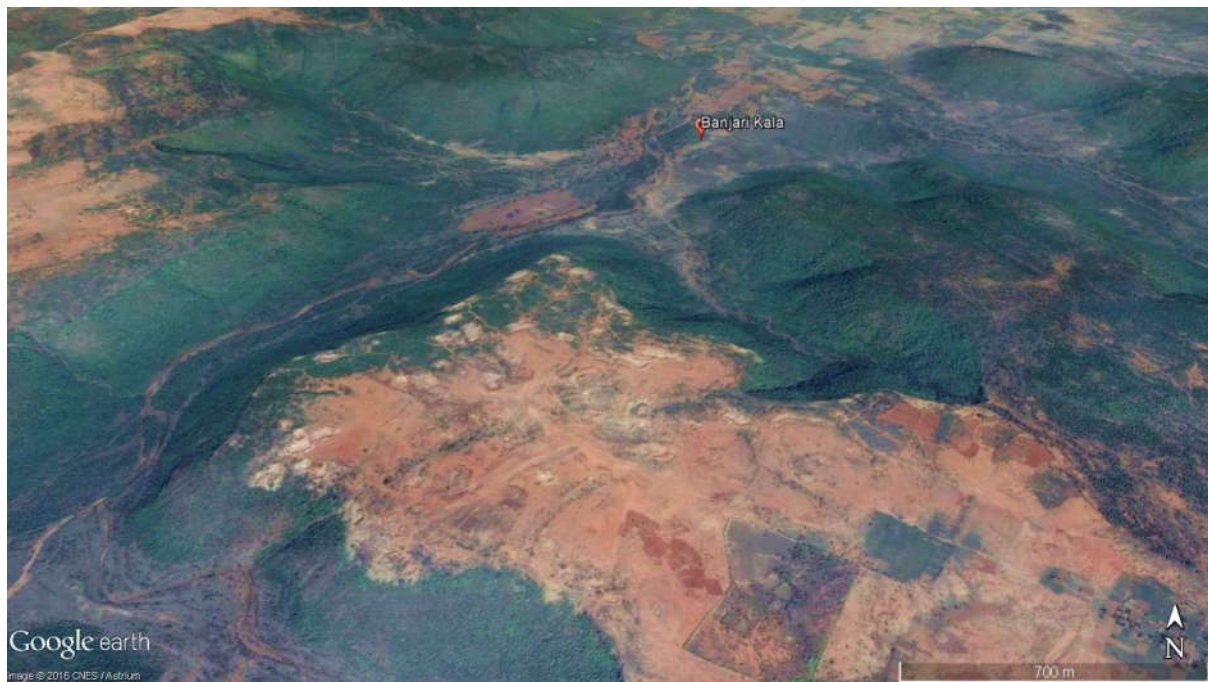


Map 19 Locations of Rajapur, Sarso and Bhavanipur villages in Marihan and Sukrit range on Google imagery

6.3 EXPLANATION FOR ATTACKS IN 'VILLAGE' BANJARI KALA

In Dramadganj, the forest range is quite large and continuous with each other and therefore interaction of wild animals and human beings may not be expected to be much frequent. However, Dramadganj range has been infamous for intrusion of animals into villages. There have been incidences where bears have been killed. There may be many unreported incidents of such conflicts and the actual numbers may be high. During our survey, we found Banjari Kala as the most vulnerable to animal intrusions because of its topographic location. The above map shows how Banjari village comes right between the continuous forests. As we know that though, sloth bears like hilly slopes but they require soft soils to dig out ants and termites and there is continuous movement between hills and plains depending on season. Banjari Kala is situated on banks of a river Sewati which flows through this montane forests. There are massive mining activities on top of the mountain south to it.

Therefore, the village acts as direct competitor of sloth bears for food and water source. Due to mining activities going on in the southern part of this forests and dense human settlement in northern side, the animals are greatly forced to restrict their movement only through the fallow lands in Banjari Kala for their movement as it is the only available corridor for them to move in between forests. Secondly, the bears are also attracted to this village because of availability of natural source of drinking water (River Sewati) and abundance of Mahua trees.



Map 20 Google Earth imagery showing mining activities on top of Banjari Kala hills

6.4 HOW TO BE SAFE FROM SLOTH BEAR ATTACK?

Sloth bears are generally shy and avoid human confrontation. The mammal is nocturnal and sleeps during day time inside their den. However, if confrontation with human being happens by chance, it can attack unprovoked. Sloth bears have a formidable reputation for inflicting serious injury to humans, often to the head and face. Humans mauled by sloth bears may die or experience permanent physical disability and subsequent social and economic hardship. Thus, the sloth bear is one of the most feared animals throughout its range (*Phillips 1984b; Rajpurohit and Krausmann 2000; Ratnayeke 2007*). For bears, consequences are also severe because humans often kill bears from fear, self-defence, or retaliation, and every attack erodes local support for their conservation (*Chauhan 2006; Ratnayeke et al. 2006*). *Ratnayeke (2014)* suggested following measures to reduce conflict with sloth bear and keeping ourselves safe if unexpected confrontation occurs with the bear:

- i. Bears frequently rest up in dense thickets and rock outcrops during the day. Humans moving through these types of habitat should be acutely aware of a possible encounter with a bear.

- ii. Although groups do not guarantee safety, and fear of bears greatly tests human courage, vast majority of attacks the presence of another human is a mitigating factor and likely reduces the severity of injuries. Staying in close-knit groups and not fleeing an encounter will decrease the likelihood that any one person in the group will experience an attack, or that a bear will initiate or persist in an attack.
- iii. People who encounter a sloth bear that slowly approaches and seems unaware of their presence should attempt to quietly move out of the way.
- iv. In encounters involving a bear that is aware of humans but without an immediate charge (e.g., bear rears up in a threat display), humans may slowly back away. If the bear charge, physical contact with the bear may be thwarted by staying close together.
- v. A person ambushed at close range, or knocked down by a charging bear, may decrease risk of injury or death by using the positions recommended by *Herrero (2002)* in case of grizzly bear attacks due to sudden encounters: balling up and laying on the side, knees against forehead, elbows meeting at forehead, and hands locked around the back of the neck or lying face down on the ground with hands locked behind the neck and arms protecting the face.