

Painful death of an elephant through rumour and gunshots, north-west India

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Abstract: An adult male elephant aged about 35 years was brutally gunned down near to Rajaji National Park area, north-west India. Before approaching to the unnatural death, the elephant moved approximately 12 kilometers in 9 hours in rural and populated areas and killed 2 villagers and injured 7 persons, while passing from different villages and in between the agriculture fields. The victim elephant was a sharp crop raider and non aggressive in nature. A total of 27 bullets were found over to his body whereas about 70 gunshots were fired at the accident site to kill the elephant. Study suggested that huge rumour, misunderstandings and human pressure has caused the sorrowful death of elephant. This was the first case in the history of Uttarakhand state, India in which wild elephant was brutally killed in one way encounter mainly due to rumour spread within Haridwar district administration and forest officials. This study reviews the case history of this tragedy and conservation measure regarding to Asian elephant's conservation. [The Journal of American Science. 2008;4(4):25-32]. (ISSN: 1545-1003).

Keywords: Elephant, gunshot death, developmental activities, north-west India.

Introduction

India has between 21,000 and 25,000 Asian elephants (*Elephas maximus*) in the wild and among them Uttarakhand state harbours 1346 elephants distributed within 14 protected areas. India currently has the largest surviving population of the Asian elephant, approximately 50 % of the total world population of the species (Daniel, 1996). Historically, elephants were known to raid crops but during the recent past because of increasing human population and decreasing forest cover, the conflicts between man and elephant have escalated. A number of wildlife habitats have undergone or are being threatened with fragmentation due to various anthropogenic factors and this has adversely affected the large mammal populations residing in them (Johnsingh et al., 1990). Recently, developmental activities and habitat destruction have caused major decline in the abundance of the terrestrial megafauna. As most of the wild animals are presently categorized under threatened category therefore, there is increasing concern that the area-wise decline of the elephant will have unexpected and grave consequences for the long-term viability of the terrestrial ecosystems.

The Rajaji National Park was established to enhance the long-term survival of the Asian elephant in a sub tropical moist deciduous forest in India. But during the recent past natural continuous forest ranges of India has been broken up into many parts due to agriculture, urbanization, increasing road traffic and development related activities as well as other anthropogenic activities. This situation creates many problems for various organisms living in forests especially for large size mammals like elephant. Genetic isolation, limitation of dispersal, migration and the decline of populations of animals requiring large territories are the most common problems connected with fragmentation of forests and other components of the environment. Shivalik landscape (lesser Himalayan zone) is one of the last few places in the world where elephants exist and offers urgent need for conservation. From conservation point of view Rajaji National Park appears to be India's one of the most successful national park and its development has helped to boost the population of Asian elephant in their natural habitat.

During the past one decade, elephants were observed moving through many intensively cultivated and populated areas, including national highways, railway track and villages. Rapid urbanization and industrialization (as a result of separation of Uttarakhand state from Uttar Pradesh state) around the Rajaji National Park and Hardwar forest division have been major factor that has caused disturbance in elephant's frequent movement. A number of villages were situated around both of these protected areas and grow many potential cash crops to enrich their economy. The major cash crops are *Saccharum officinarum* (Sugarcane), *Oryza sativa* (Paddy), *Triticum* spp. (Wheat) and *Zea mays* (Maize) and few cultivators also cultivate fruit yielding species in their fields like *Musa paradisiaca* (Banana) and *Mangifera indica* (Mango). Elephants traditionally often leave the forest to feed in nearby villages, usually at night period and returned back to forest area at early morning hours. Even before 1998 elephants were reported to be raiding crops but their outside movement was more common from 2001 (Joshi et al., 2001). Currently the

raids have become more frequent and the number of complaints by cultivators has increased. Elephant's stray behaviour was more common in villages those are attached to the boundary of Hardwar forest range of the Rajaji National Park area as anthropogenic disturbance was quite more as compared to other forest ranges (Joshi and Joshi, 2001).

The question arises that why do elephants go into cultivated lands by crossing a large stretch with populated area and with imminent risk to their lives. Generally, it is said that elephant's habitat becomes exhausted and their large home ranges were converted into smaller ones. But in Rajaji National Park and Hardwar forest division situation is totally different as said area is enriched with sufficient fodder species, which the elephants like and it can be said that seasonal food resources are available round the year. Elephants utilize 50 fodder plant species round the year in the Rajaji National Park and their movement was dependent on the seasonal availability of water and fodder species (Joshi and Singh, 2008b). The factors that contribute to the killing of humans by elephants are the presence of people into elephant's habitat to collect firewood and fodder, conflict over water and cultivation of palatable crops near the forest boundary. In between years 1986 to 2004, elephants have killed 47 persons and injured 43 persons in and around the Rajaji National Park area. And in Hardwar forest range, elephants have killed 26 persons and injured 11 persons in between year 1985 to 2001. On the other hand from 1987 to 2004, more than 134 elephants succumbed in the wild to various reasons (train accident, poaching, electrocution, fallen through hillock, disease, bull fight and natural).

Human settlements in and around the park area have created the shrinking of elephant's natural paths. The human population around the Rajaji National Park alone has doubled during past one decade and rapid urbanisation and industrialisation has resulting in the loss of many forestlands to townships and to various development related activities (Joshi and Singh, 2008a). During the recent past several adult male elephants were killed intentionally through poisoning and electrocution but this type of elephant death was observed for the first time after the establishment of Uttarakhand state. An adult male elephant was killed through heavy gun shooting near to Rajaji National Park area and this death incident of elephant was in itself a historical record because this type of one side encounter was not earlier observed from this region. This report deals with the case study of unnatural death of an elephant from north-west India.

The incident and observations

On May 29, 2008 just after releasing the official order (to kill elephant) of Chief Wildlife Warden, Government of Uttarakhand, a adult male elephant aged between 35-40 years was badly gunned down near to Ranipur jhal area, Bahadrabad, Hardwar (Figure 1,2,3,4,5,6,7,8,9,10,11&12). A total of 27 gunshots were observed from his body and surprising thing was that AK-47 rifle was also used for killing the elephant. This historical incident was very painful and caused violenceness among local people. Observations indicated that elephant was killed mainly due to rumour, which was spread like jungle fire among government officials and local people and pressure developed by local villagers regarding to killing of elephant. Information like elephant has killed 11 villagers and now moving towards human habitation area has also pressurised the forest officials to forcefully declare the elephant as rogue.

On the morning of 29th, it came to my notice that an adult bull elephant has killed 2 persons near to Buddhahedi village and was escaped in adjoining area. Quickly, I with my camera moved towards the accidental site. After reaching and looking into the situation it appeared that villagers were too much aggressive and were badly responding to elephant. At the same time forest officials and administrative officers of the district along with police force were trying to convince the local people but serious situation has motivated the villagers and they badly reacted against the administration and few villagers snatched down one of the firearm from a forest official. Besides, huge crowd was also running towards elephant with their firearms to deter away the elephant from village premise. Elephant was running towards Delhi – Hardwar National Highway and at 12.15 pm, elephant crossed the highway and moved towards Ganga canal near to Jamalpur village. During that period elephant also crossed a nallah, a high wall of about 5 feet and a canal. I was looking the incident calmly and concentrated my mind in the route, which was followed by the elephant.

After entering the transparent forest cover situated in between two Ganga canals (one concrete and another rough based), elephant stayed there for about one hour (Ranipur jhal area), however at short intervals he was chased by forest officials and heavy crowd. During the said period elephant was continuously trying to move towards Rawli river, which links the Rawli forest with accidental site (torrential) but tremendous crowd everywhere have not allowed the elephant to move across the area. Rawli river was a traditional seasonal corridor for elephants and elephants has utilized this corridor and performed

their outside journey upto Ranipur jhal area before 2001. But currently elephants were not utilizing this river stretch to move outside from the protected area. One of the fact related to this was presence of small agriculture land near to Ranipur jhal (Subhash nagar area) but after 2001 rapid urbanization and industrialization has led to shrinking of this stretch. Cross-fires were also noted during the said period at short intervals. At 1.15 pm, elephant was shot twice by a police man and just after that elephant ran away very fast and enter to a plantation site of *Populus ciliata* (popular). Again elephant kept himself in popular site for about one hour. As per the field observations, he was quite irritated and aggressive in nature and broken down a tree from there.

The Incident (29.05.2008)-

S. No.	Time	Area / incident
1.	06.00 am – 07.00 am	Elephant moved around the Bahadarpur village
2.	07.00 am – 08.00 am	Elephant moved adjoining to Sanghipur and Ransura village, one villager was killed by elephant
3.	08.45 am – 09.10 am	Elephant moved peripheral to Sehdevpur and Buddhahedi village, one villager was killed by elephant
4.	09.30 am – 10.40 am	Elephant crossed the Rohalki and Ahmedpur area
5.	10.45 am – 12. 05 pm	Elephant crossed the Bhadrabad area and reached to Hardwar-Delhi National Highway and crossed it
6.	12.15 pm – 12. 25 pm	Elephant entered to Ranipur jhal area
7.	01.00 pm	1 st gunshot fired over to his body
8.	01.15 pm	2 nd gunshot fired over to his body
9.	01.18 pm	Elephant entered to Popular plantation area
10.	01.20 pm – 02.50 pm	Continuous cross firing on elephant started
11.	02.55 pm	Elephant was killed
12.	03.02 pm	Elephants’ dead body was wobbly fell down in Ganga canal
13.	03.05 pm	Elephant was merged in Ganga water

At 2.55 pm forest officials collectivized in circular manner and started cross-firing on elephant. Next movement, elephant started running towards Ganga canal and after 2 minutes when he was crossing the canal very mournful climax was occurred. Official’s fired again on the elephant climbing on the slope of canal. Huge amount of bullets were fired to shoot out besides, AK-47 rifle was also used during that moment. Suddenly, elephant fell down adjoining to canal and defecated on sloppy area of canal. After few seconds, he again tried to standup and looking into the same more than a dozen of gunshots were again penetrated over to his body. Concluding point was that his body was strike down in the Ganga canal and after 3-4 seconds he was merged in water (03.05 pm). I was watching whole of the incident sorrowfully and for few seconds, tiers has supported me to overcome from the situation. What a painful death was? His only mistake was that he has followed erroneous way because of human hindrance. I was searching the answers regarding to these questions.

Next day morning forest officers uplifted his dead body and bring it to Rawli forest of the Hardwar forest range of the Rajaji National Park with the help of crane and a truck. I examined the morphological features (tusk size, pigmentation rate, forehead shape, fore foot circumference and tail shape) of the elephant. Besides, gunshots were also counted from his body. From next day (31 May, 2008), I have conducted indepth survey of whole of the area through which elephant enter to the populated area with the point of view to develop a route map (Figure 13) for government so that no such incident will occur in near future and if happened we can return back the animal to adjoining forest area. This way will be a reliable method to safe the elephant as the animal also know the better way to return back from their traditional route. And for this I conducted survey in all the villages from where elephant moved during last night and where possible traced the footprints of elephant in agriculture field with the help of villagers. As most of the areas where elephants raid the crops traditionally and those were attached to the Ganges were well known to me, therefore, it supported me in various ways during the field data collection.

Case history

Field observations and ongoing study has helped me to identify died elephant. I am conducting the research studies on the behavioural biology of Asian elephants in Rajaji National Park and its adjoining

areas since last 10 years. And during the said period I have observed the victim elephant several times in Chilla forest (Rajaji National Park), Shyampur forest (Hardwar forest division) and Laldhang forest (Lansdowne forest division). I have regularly encountered and monitored earlier this elephant in Chilla forest from March to June but his movement was mostly observed in Shyampur forest range at the onset of monsoon and upto the winter (February). The elephant was a sharp crop raider and mostly raided crops in Mishrpur, Ajeetpur, Jagjeetpur and in Jaipota villages, which are adjoining to river Ganges. As far his behaviour was concerned, he was not aggressive at all and before death suffering from musth.

After conducting in-depth survey of the track and looking into the ground situations it seems that on 27th May 2008, he started from Chandi forest towards Anjani forest (Shyampur forest range, Hardwar forest division) and after crossing the Hardwar – Bijnor National Highway and three islands situated in between river Ganges he entered to village Mishrpur and performed his journey towards Jaipota village (towards Laksar area). On next morning (28th May) he returned back to Anjani forest and stayed in the same area upto the sunset. Anjani forest is dominated by *Acacia catechu* – the favourite food item of elephants. The villages along the river Ganges are situated on the land that was once part of the elephant's home range and elephants are utilizing their traditional feeding grounds in few of these areas, which are presently denied to them and are replaced by human settlements (Joshi and Singh, 2007). In evening hours he again started for agriculture fields to feed on cultivated crops and entered to Jaipota village. From Jaipota he moved to Bahadarpur area as whole of the area is dominated by *Saccharum officinarum* (Sugarcane) and from Bahadarpur he walked adjoining to Pathri forest, Tehri Dam colony, Sanghipur village and entered to Ransura village. Finally he entered to Buddhahedi village as his movement was disturbed and has got restricted by the villagers those are deterring and chasing him with loud noise. As per the observations elephant continuously moved in wrong direction mainly because of heavy crowd and obstacles present in his way. During this long journey of about 12 kilometers elephant has killed two villagers in Ransura and Buddhahedi villages. But as per the interviews obtained from local people, in Buddhahedi village a person has made fire on elephant and the bullet penetrated the ear lobe of the elephant and next moment elephant attacked and killed the villager immediately.

While running from these villages stretch, seven people were also injured by elephant not intensely. Next incident when elephant reached to Hardwar – Delhi highway and wants to cross the road, I was there and managed the situation through controlling the heavy traffic running over the highway. Moment when elephant realized that traffic has been stopped, he quickly crossed the road and moved towards Ganga canal near to Jamalpur village. A total of 27 gunshots were found over his body whereas about 70 fires were made at the accident site to kill the elephant. While examining the body, a bullet shot was also found in his upper jaw.

What could be done at the situation?

From early morning to 02.00 pm (9 hours), elephant was continuously running and chased by tremendous crowd along with forest and police officials. Approximately 500 people were continuously watching the incident from all the four directions and in such a situation there was not any chance for elephant to escape out. However few suggestive measures could be considered.

1. Elephant may be tranquilized during early morning hours at any village site and efforts can be made to shift him smoothly to nearby forest area. If impossible mercy death can be provided as this method will be quite appropriate at the situation. The incident which has been occurred may encourage the villagers to react as same in near future if any incident of such kind will occur.
2. Forest officials has not any accurate knowledge about the route from where elephant came, elephant can be forcefully returned back towards forest area but positively during the early morning hours or even during evening hours. Morning and evening hours will be the best timings as elephant perform their outside movement during said period and it will help him to some extent. But during this course, administration should control the crowd of the different villages from where elephant will return back to the forest area.
3. At last, elephant reached to the Ranipur jhal area – one of the denied elephant corridor for outside movement and if strong steps should be considered, he may be forcefully returned to the Rawli forest through Rawli river (torrential and situated near to accident site). For conducting this operation people movement should be stopped near to SIDCUL (State Infrastructure Development Corporation of Uttarakhand Limited) and BHEL (Bharat Heavy Electricals Limited) road area. The distance from accident site to Rawli forest is only 3 kilometers.

It was felt that some efforts could be done before killing the elephant and misunderstandings, rumour and tremendous human pressure has caused the sorrowful death of the elephant.

Because elephant ranges over a wide variety of habitats, the elephant's conservation ensures the survival of less prominent animals. Thus, the elephant has become a flagship species, emblematic of our global conservation movement. In those parts of India where villagers live along-side the elephant habitats, sharing with it the land's resources, the animal has become a source of fear and dread because of the damage it causes to crops and the danger it poses to human life. The arrival of tuskers on the outskirts of a village arouses terror in the residents, whose long experience has forced them to view elephants with skepticism, hostility and deep resentment. Historically, man and elephant engaged in occasional conflicts and recently the number of incidents is escalating. The sources of these conflicts can be traced to historical events, as well as to poor land-use practices, rapid human population growth, inappropriate land policies, poaching, presence of national highways and railway tracks in between the protected areas and other management related deficiencies.

India's elephant populations are currently threatened by habitat deterioration, developmental activities, anthropogenic pressure inside the deeper forest regime and unregulated exploitation of natural resources. Effective human-elephant conflict mitigation cannot take place in the long-term without the involvement and true support of the local communities. Similarly, rural livelihoods depend on a flow of natural resource benefits, many of which cannot be sustained without active protective measures. To build these partnerships requires greater understanding about working with local communities in designing programs to realize joint benefits. It also requires effective community empowerment to allow the communities to plan for wildlife management and conservation.

The Rajaji National Park, Lansdowne forest division and Hardwar forest division are important biological areas and have great potential for wildlife and its conservation. One line of evidence is that the Rajaji National Park harbours important populations of species on the IUCN Red list, the Asian elephant. In recent years, human activities have expanded in the boundaries of the protected areas and as a result most of the wildlife corridors have been shrinking rapidly. In this type of situation elephants are bound to move within protected area limit and if their movement expands as per their traditional home range, there may be the chances of enhancement of man-elephant conflict and even any incident may occur like this. I am concluding my words with the questions like that "*does raiders can co-exist with human beings? And what are the important factors, which are making elephants rogues*".

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6/19/2008



(1)



(2)



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(6)

THE INCIDENT

Figure 1) Last walk with friends: Victim elephant (center) with his friends during his movement along Hardwar – Bijnor National Highway. 2) Elephant crossing the Delhi – Hardwar National Highway. 3) Elephant at Ganga canal. 4) Heavy crowd at accident site. 5) Elephant near to *Populus* plantation. 6) Elephant was crossing the Ganga canal when firing started over to him.



(7)



(8)



(9)



(10)



(11)



(12)

Figure 7 & 8) Officials were firing over to elephant. 9) Merged dead body of the elephant in Ganga water. 10) Officials uplifting the dead body of elephant with the help of crane. 11) Elephant before the postmortem at Rawli forest. 12) Bullet marks over the dead body of elephant.

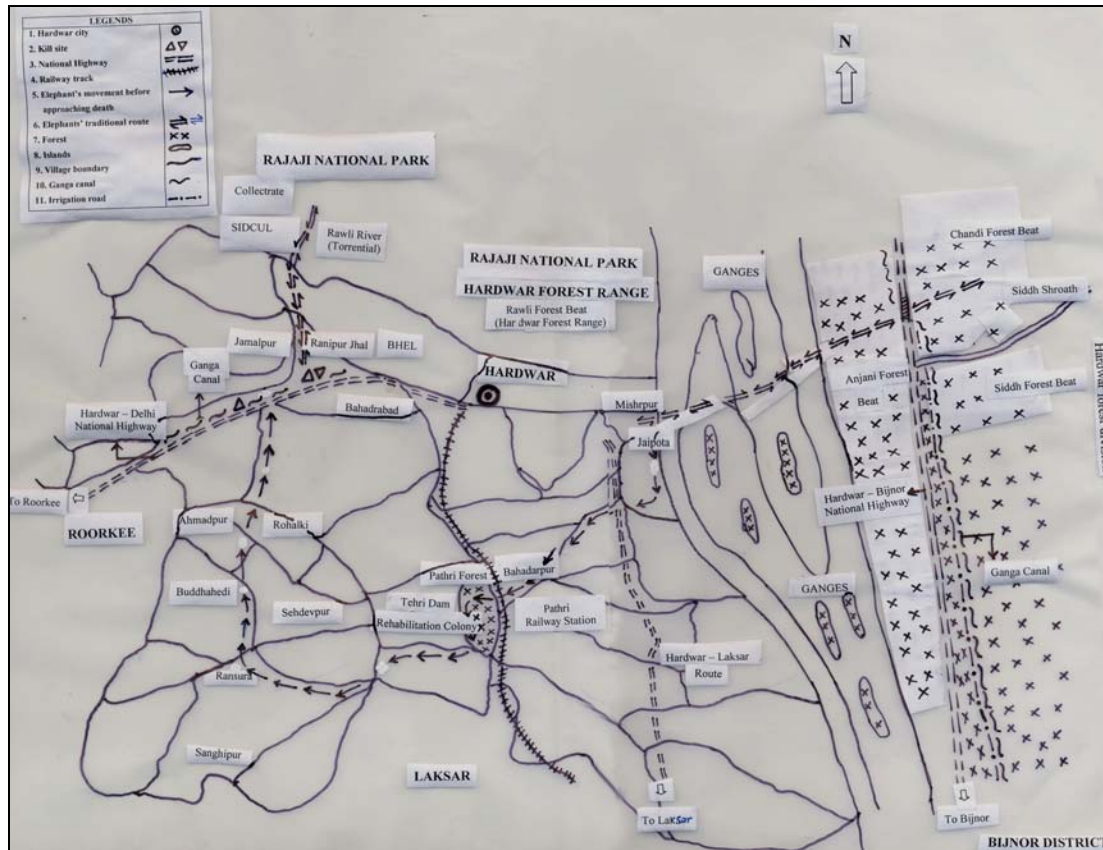


Figure 13. Sketch map of elephant movement from Shyampur forest range to Ranipur Jhal area (where elephant was killed), not to scale.

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