

# Threats to One Horned Rhino at Kaziranga National Park, Assam

## Abstract

Kaziranga National Park is a world renowned protected area in Assam, India. The park, which hosts two-thirds of the world's great one-horned rhinoceroses, is a World Heritage Site. Rhino poaching in Assam is one of the major environmental issues in India which continues primarily in the region of Kaziranga National Park. Illegal rhino horn trade has been the main problem facing managers of the rhino-protected areas of Assam. This article attempts to provide the methods of poaching, reasons of decline and the strategies to Rhino poaching. Empirical method has been adopted to collect data and information.

**Keywords:** Kaziranga National Park, One horned Rhino, environmental issues, conservation strategies.

## Introduction

The Kaziranga National Park (KNP) is a world renowned protected area in Assam, India nestled on the banks of the river Brahmaputra in the foothills of the Karbi Anglong (KA) Hills. The park is spread over two districts Golaghat and Nagaon with majority of the area falling within the administrative boundaries of Golaghat. It is the single largest undivided and representative area of the Brahmaputra valley floodplain, grassland and forest with associated diversity. The park represents one of the last unmodified natural areas in NE regions of India. It is a vast wet alluvial tall grasslands, interspersed with numerous waterbodies and patches of deciduous to semi-evergreen woodlands. It has 52% tall grassland, 5% short grass or marshes, 7% sand cover, 29% woodland, 7% waterbodies and nearby hilly areas form complexes of habitats which supports variety of wildlife (Kushwaha, 1997). It is a UNESCO World Heritage site and was inscribed for being the world's major stronghold of the Indian one-horned rhino, having the single largest population of this species, currently estimated at over 2,401. There are five species of rhinoceros left in the world. Assam takes great pride in conserving the great Indian one-horned rhino (*Rhinoceros unicornis*) as it is a home to more than two-thirds of the wild population in the world. They are majorly found in Kaziranga National Park, others are Manas National Park, Orang National Park, Pobitora Wildlife Sanctuary and Laokhowa Wildlife Sanctuary of Assam, covering an area of around 1100 square kilometers. Rhino poaching in Assam is one of the major environmental issues in India. Sport hunting became common in the late 1800s and early 1900s (Talukdar *et al.*, 2008). Indian Rhinos were hunted relentlessly and persistently. Reports from the middle of the 19th century claim that some military officers in Assam individually shot more than 200 rhinos. By 1908, the population in Kaziranga had decreased to around 12 individuals (Laurie *et al.*, 2003). In the early 1900s, the species had declined to near extinction (Talukdar *et al.*, 2008). Poaching for rhinoceros horn became the single most important reason for the decline of the Indian rhino after conservation measures were put in place from the beginning of the 20th century, when legal hunting ended. Illegal rhino horn trade has been the main problem facing managers of the rhino-protected areas of Assam. Keeping all these in view, the present study has been undertaken to provide the methods of poaching, reasons of decline and the conservation strategies of one horned Rhino of Kaziranga National Park.

## Aim of the Study

1. To study the reasons for the decline of the one horned Rhino in Kaziranga National Park
2. To study the method of poaching.
3. To study the Conservation strategies of one horned Rhino in Kaziranga National Park.



**Mainu Devi**

Assistant Professor  
Deptt. of Zoology,  
Diphu Govt. College,  
Diphu, Karbi Anglong,  
Assam

**Methodology**

Empirical method has been adopted to collect data and information. A field Study tour has been undertaken at Kaziranga National Park, Assam, India during the on season.

**Reasons of Poaching**

Composed of a substance called keratin, the rhinoceros' horn is seen as a necessity for its survival in the wild, as well as for some, a weapon of self-defense. Today, the reasons behind rhino poaching include a combination of factors, namely:

**1. Traditional Medicine**

Rhino horns are similar in structure to horses' hooves, turtle beaks, and cockatoo bills. They are made of keratin – in rhinoceros horn it is chemically complex and contains large quantities of sulphur-containing amino acids, particularly cysteine, but also tyrosine, histidine, lysine, and arginine, and the salts calcium carbonate and calcium phosphate. Rhino horn is believed to have magical healing properties. The rhino horn is ground into powder to help "cure" ailments such as vomiting, arthritis, headaches, fever. According to traditional Chinese texts, such as Li Shih-chen's 1597 medical text "Pen Ts' ao Kang Mu", rhino horn has been used in Chinese medicine for more than 2000 and is used to treat fever, rheumatism, gout, and other disorders. It also states that the horn could also cure snakebites, hallucinations, typhoid, carbuncles, food poisoning, and "devil possession."

According to research by TRAFFIC (Wildlife Trade Monitoring Network ,conservation programme) and World Wide Fund for Nature, some Vietnamese buyers believe horn to be a cure for cancer when ground to a fine powder. According to a survey conducted by World Wide Fund for Nature in South Africa, it is kept by wealthy people in Vietnam as a "peace of mind" cure. In 1993, rhino horn was removed from the official lists of Traditional Chinese Medicine. It is now only sold in Vietnam following an unsubstantiated rumour that horn cured a high-ranking official in Vietnam of cancer (Pederson and *Stephanie*, 2013). A survey carried out by TRAFFIC in 2013 identified that the motivation for consumers buying rhino horn is the emotional benefits rather than medicinal, as it reaffirms their social status among their peers. Image and status is important to these consumers, they tend to be highly educated and successful people who have a powerful social network and no affinity to wildlife. Rhino horns are sometimes bought for the sole purpose of being gifted to others; to family members, business colleagues or people in positions of authority.

**2. Aphrodisiac**

There is a belief in the West that rhino horn is used as an aphrodisiac and sexual stimulant but this is not correct and seems to have been misunderstood or misinterpreted by Western media. However, research has shown that people in Vietnam are starting to believe this rumour as they are consuming it for new reasons. Even without aphrodisiacal properties, however, rhino horn is one of the mainstays of TCM, and its collection has been

responsible for the death of tens of thousands of rhinos around the world.

3. Rhino horns are also used for artistic carving
4. The amount that a single rhino horn is worth – clocking in at a higher value on the black-market than both gold and cocaine.
5. Some other parts like nails, skins have very high value in Asian traditional medicinal market.

**Methods of Poaching.**

Five methods of killing rhinos have been recorded (Menon, 1996).

1. Shooting is by far the most common method used; rhino horn traders hire sharpshooters and often supply them with rifles and ammunition.
2. Trapping in a pit depends largely on the terrain and availability of grass to cover it; pits are dug out in such a way that a fallen animal has little room to man oeuvre with its head slightly above the pit, so that it is easy to saw off the horn.
3. Electrocuting is used where high voltage power lines pass through or near a protected area, to which poachers hook a long insulated rod connected to a wire, which is suspended above a rhino path.
4. Poisoning by smearing zinc phosphide rat poison or pesticides on salt licks frequently used by rhinos.
5. With a noose, which cuts through the rhino's skin and kills it by strangulation.

**Results of Poaching:**

If rhinos are poached it has a negative impact on the environment because it can lead to loss of biodiversity This will lead to the collapse of food chains. Rhino poaching has also a negative impact on ecotourism. As a result jobs can be lost, which has a negative impact on our economy. Elephants and rhinos are part of the BIG FIVE which are part of our heritage. Tourists save up their money and come from all over the world to see them. Rhino Poaching will soon lead to extinction of the species – there will be no rhinoceros left for our children's children to see and admire.

**Strategies to Prevent the Poaching**

1. Impose imprisonment instead of heavy fines for those that break the law and to frighten the poor who are persuaded to do the poaching.
2. Rhino horns could be sawn off because the animal will then not be killed to get the horn. Dehorning of Rhino should be conducted under Direct Veterinary Supervision
3. Technology, like tracking devices can be attached to the rhino to monitor its movement (which will also tell us if it is still alive).
4. A Pro Tag device can also be implanted in the horn so that if the rhino is poached it can be traced and the poachers arrested.
5. Legislation can be introduced that protect the animals and make all hunting illegal
6. Monitor the legislation introduced by armed patrols.
7. Awareness campaigns can be arranged to inform people about the importance of the rhinoceros.

8. Impose very heavy fines and imprisonment for those that break the law and to frighten them.

**Conclusion**

Rhinos are facing an escalating poaching crisis at the moment and unless something dramatic is done to protect them they will go extinct in the wild. There is no one silver single bullet to protect rhinos, what is needed is a wide range of activities like anti poaching, monitoring, environmental education, demand reduction, capacity building and captive breeding.

**References**

1. Bhaumik, Subir (17 April 2007). "Assam rhino poaching 'spirals'". *BBC News*. Retrieved 2008-08-23.
2. Laurie, W.A.; Lang, E. M.; Groves, C.P. (1983). "Rhinoceros unicornis" (PDF). *Mammalian Species. American Society of Mammalogists (211)*: 1–6. JSTOR 3504002. doi:10.2307/3504002
3. Menon, V. (1996) *Under siege: Poaching and protection of Greater One-horned Rhinoceroses in India*.
4. N. Barua, M. (2008). "Rhinoceros unicornis". *IUCN Red List of Threatened Species. Version 2012.2. International Union for Conservation of Nature*.
5. Pederson, Stephanie. "Continued Poaching Will Result in the Degradation of Fragile Ecosystems". *The International*. Retrieved 2013-01-31.
6. Roseann Mc Bain( 2012) *Reasons for Rhino poaching*, [www.travelground.com](http://www.travelground.com).
7. Talukdar, B. K.; Emslie, R.; Bist, S. S.; Choudhury, A.; Ellis, S.; Bonal, B. S.; Malakar, M. C.; Talukdar, B. N. Barua, M. (2008). "Rhinoceros unicornis". *IUCN Red List of Threatened Species. Version 2012.2. International Union for Conservation of Nature*.