

SHORT COMMUNICATION

A case study of Greater One Horned Rhinoceros (*Rhinoceros unicornis*) in Kaziranga National Park of Assam, India

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ABSTRACT

The greater one-horned rhino or Indian rhino were once abundant in alluvial plains of India. But due to uncontrolled poaching, degradation and loss of available habitats, rhino populations are threatened. As per the IUCN Red List of Threatened Species 2018, this species is in Vulnerable category. Out of the all conservation measures taken by the government and NGOs, the captive breeding programmes were proved to be the most successful in Indian rhinos. In Kaziranga National Park, Assam due to extensive conservation measures, the population of rhinos has reached around 70%. The present note highlights the major threats against the sustenance of rhinos and conservation measures made by various government/ non-government organizations at international and national level.

KEYWORDS: Poaching, habitat, captive breeding, Kaziranga National Park, Assam.

Received 29 October 2018, Accepted 1 December 2018 | Email: genetics_1407@yahoo.co.in

Introduction

The greater one-horned rhino or Indian rhino was once abundant in alluvial plains of India. It occupied an area stretching from the borders of Myanmar in the east, across northern India and southern Nepal, as far as the Indus Valley in Pakistan in the west. But due to uncontrolled poaching, degradation and loss of available habitats, rhino populations are threatened (Rookmaaker, 2016). The evidence of habitat destruction can be realized from the tea plantations in Assam during British reign and then post independence the growing agricultural practices which transformed the rich alluvial plains to cultivable lands. The major threats which affects the sustenance of rhinos and their conservation are *Human-wildlife conflicts* witnessed in Pabitora Wildlife Sanctuary when 25-30 rhinoceros strayed out of the sanctuary and raided the crops of farmers inhabiting the fringes of the protected area; *Natural causes* like floods, predation, old age and diseases; *Livestock grazing* which may destroy the grasslands; and *Poaching* due to gunshots, pit poaching, electrocution, poisoning by zinc phosphide/ pesticides/ rat poison, spearing and strangulation (Talukdar, 2000).

As per the IUCN Red List of Threatened Species 2018, this species is in Vulnerable category. The state of Assam is

stronghold of the Rhino population (Talukdar, 2000). It once accommodated all three Asian species of rhinoceros but in the beginning of 20th century the two rhino species vanished from the state except for Greater one-horned rhinoceros. The state has set a successful example in conservation of rhinos via captive breeding and approximately 75% of rhinos are found in this region (Vigne and Martin, 1994).

Kaziranga national park was the first area in Assam to be notified as rhino conservation region in 1908. The park's 430 square kilometer area sprinkled with elephant-grass meadows, swampy lagoons, and dense forests is home to Indian one-horned rhinoceros. The park is a potential breeding site and habitat of rhinos because it is endowed with food type of rhinoceros i.e. tall grasses, short grasses, submerged and floating aquatic plants, herbs, creepers, ferns, shrubs, leaves, twigs, fruits and saplings (Steinheim, 2005). It is recognized as an Important Bird Area by BirdLife International for the conservation of avifaunal species. Birds like lesser white-fronted goose, ferruginous duck, Baer's pochard duck and lesser adjutant, greater adjutant, black-necked stork, and Asian Openbill stork specially migrate from the Central Asia during the winter season. (<https://www.kaziranga-national-park.com/>). With over 70

per cent of the population concentrated in Kaziranga National Park, a local catastrophe – whether caused by poaching, disease or some other factor – could have a devastating effect (Rookmaaker, 2016).

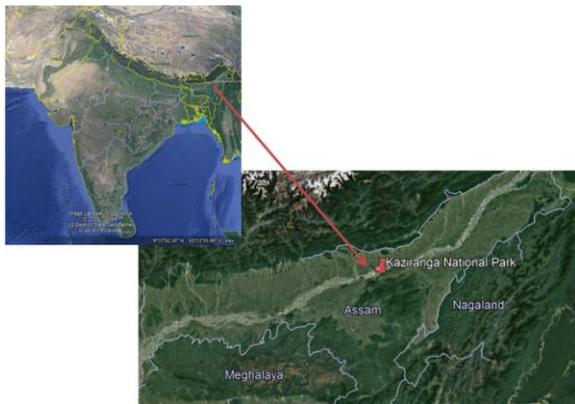


Figure 1. Map showing location of Kaziranga National Park (Source: Google earth).

The major threat to survival of rhinos in this park is poaching because poachers have easy access into the park due to absence of natural barriers towards southern side of the park. The northern side has Brahmaputra river which attracts many fishermen who visit the park for fishing and they have colluded with the poachers. The poachers are mainly tribes like Nagas from Nagaland and Bhutan, Karbi tribes from Karbi Anglong hills. The killing of rhinos is done indiscriminately by poachers and is mainly accomplished via modern weapons like guns. The availability of such weapons became frequent lately due to terrorist activities in Assam. Conserving rhinos is a relentless fight with poachers and smugglers (Vigne and Martin, 1998); (Talukdar, 2000). The horns of rhinos are important medicine in Chinese culture where it is believed that rhino's horn is an antidote against poison. Therefore hunting of rhinos for their horns had been a persistent threat to survival of the species.

In response to poaching threat, the government of India has promulgated many policies and enacted many laws to protect wildlife. Most of the wildlife in India is protected under the Wildlife Protection Act, 1972, which is the single most significant statute on wildlife. The Kaziranga National park was declared a Tiger Reserve in the year 2007. An electronic surveillance system, called the Electronic Eye has been installed in Kaziranga from the fund provided by the National Tiger Conservation Authority (NTCA), Govt. of

India under "Project Tiger". Under the scheme, seven tall towers have been erected at different locations, fitted with visual and thermal imaging cameras with 24x7 real time video access from the control room. The penalty for the offence committed under Wildlife (Protection) Act has been raised to minimum seven years and fine not less than fifty thousand rupees. In the year 2010 the Government conferred the power to use arms by forest officials and immunity to forest staff in use of fire-arms under Section 197 (2) of the CrPC, 1973 (Singh, 2017). The park is also making efforts to monitor the wildlife by using drones since the officials believe the poachers are well-armed and on a constant lookout to strike (Anon., 2017).

The latest rhinoceros census in Kaziranga reported a gain of just 12 rhinos (from 2,401 to 2,413) since 2015 (Mazoomdaar, 2018). It can be attributed to the monumental works done by Assam Government and various NGOs like WWF-India, Aaryanak which in association with The David Shepherd Conservation foundation (DSWF) started a ten year Wireless Communication Enhancement Project in Kaziranga National Park in 2003 to facilitate the communication between anti-poaching camps. These NGOs extended their hands for wildlife conservation in this region and spread social awareness towards need of wildlife conservation and reforms.

Further in collaboration between the Government of Assam, the International Rhino Foundation, the World Wide Fund for Nature, the Bodoland Territorial Council, and the U.S. Fish & Wildlife Service; Indian Rhino Vision (IRV) 2020 has been developed which aims to protect and increase the population of the one-horned rhinoceros. IRV 2020 hopes to raise the number of rhinos in Assam to 3,000 by 2020 and spread them over seven of the state's protected areas: Kaziranga, Pobitora, Orang national park, Manas national park, Laokhowa wildlife sanctuary, Burachapori wildlife sanctuary and Dibru Saikhowa wildlife sanctuary. This can be achieved if stringent actions against poaching and hunting are continued; & the ecological as well as natural factors are maintained keeping the future of rhino safe.

Acknowledgements

The authors would like acknowledge the past and present scientists and researchers who worked on rhinos and provided us with their invaluable research.

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