

RHINO POACHING IN ORANG WILDLIFE SANCTUARY, ASSAM (INDIA)

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The fate of the Great Indian One-horned Rhino (*Rhinoceros unicornis*) at the hands of poachers has been a subject of discussion, both at the national and international level. The *Rhinoceros unicornis* represents the epitome of conservation movement in Assam. However, due to increased poaching of rhinos in the protected areas of Assam, the future of the species has become uncertain. The present paper describes the recent status of *Rhinoceros unicornis* and threats posed due to poaching in Orang Wildlife Sanctuary, Assam.

Key words :- *Rhinoceros unicornis, Orang wildlife & sanctuary.*

Introduction

The conservation and protection of Great Indian One horned Rhino (*Rhinoceros unicornis*) has been the subject of discussion both at the national and International level since the beginning of this century. The *Rhinoceros unicornis* once had a wide distribution throughout the northern India from Peshawar in the west to Myitkina (Burma) in the east (Prater 1948 ; Yin 1967; Rockmaaker 1980, 1983). The remains of *Rhinoceros unicornis* were also discovered from Gujarat (Clutton-Brock 1965; Momin *et al* 1973). Due to the result of habitat destruction and changes in the surrounding environment, the Indian rhino gradually disappeared from most parts of its former distribution range and now found mainly in the Alluvial Grasslands of Brahmaputra valley of Assam, and also in some restricted pockets of northern Uttar Pradesh, West Bengal and southern Nepal.

Assam, shelters about 1500 *Rhinoceros unicornis* within its geographical boundary. While the habitat destruction is a great threat to the Indian rhino, but the poaching and illegal trade in rhino horns is at present the primary threat to the Indian rhino population in Assam. The current distribution of *Rhinoceros unicornis* in Assam is restricted to the following areas -

1. Kaziranga National Park, 2. Manas National park, 3. Orange Wildlife Sanctuary, 4. Pabitora Wildlife Sanctuary, 5. Burachapori Reserved Forest, 6. Kochmara Reserved Forest, 7. Sonai-rupai Wildlife Sanctuary, 8. Panidicheing Proposed Bird Sanctuary, 9. Deosur, 10. Kukrakata, 11. Kurua

The present paper deals mainly with the Rhino poaching in Orang Wildlife Sanctuary of Assam since 1980 and problems and prospects of Rhino conservation in the sanctuary.

Study Area

The Orang Wildlife Sanctuary (OWLS) constitute an area of 75.60 sq km, lies midway between 26° 30'N to 26° 40'N and 92° 15' E to 92° 30' E, and in the altitude of 45-70 MSL. In 1985, the State Government of Assam vide notification No. FRS. 133/85/5, dated 20.09.1985, declared that Orang was a Game Reserve.

The climate of OWLS can be termed as "Typical Subtropical Monsoon", the annual rainfall is approximately 2000 mm. The mean annual temperature varies from 7°C in winter to about 36°C in summer. The heavy precipitation occurs mostly during summer months May to September. The relative humidity ranges between 60% to 90% (Talukdar and Battacharjee 1994).

Findings

Boundary : The Northern side of OWLS is bounded by Sibori Market, Ghiladharigaon and Forest Road upto Borsola. The southern part of the sanctuary is bounded by river Brahmaputra from the Pachnoi river to the Mora-Dhansiri river. The eastern boundary comprise the Pachnoi river from the junction of Jiya-Dhansiri river to the point of its fall into the Brahmaputra river ; while the western boundary comprise the Mora-Dhansiri from its junction with Brahmaputra river upto the portion which runs up North to the South point of the boundary of Rongapara-pather village.

Vegetation : The vegetation of OWLS supports the life of Indian rhinos. and can be classified into Manmade Deciduous Forests, Alluvial Grasslands and Swamps. The details of vegetation cover are shown in Table - I

Table - I Vegetation covers of OWLS

Habitat	Area In Sq Km (Approx.)
Plantation	9.38
Thatch Area	18.60
Pure Forest Area	14.27
<i>Arundo donax & Erianthus ravenae</i> Area	12.98
Natural Forest	1.98
Brahmaputra Char Area	9.04
Wetland Area	9.53

Rhino Population : Indian rhino is the dominant species in OWLS, sharing the habitat with *Elephas maximus*, *Panthera tigris*, *Sus scrofa*, *Axis porcinus* etc. The details of census of Indian rhinos at OWLS was for the first time collected in the year 1985 and a total of 65 rhinos were counted. In 1991,

a total of 97 rhinos were counted. As per 1991 census, the population density of rhinos per sq. Km at OWLS is 1.31. The detailed population figures of *Rhinoceros unicornis* in the Year 1985 and 1991 are summarised in Table - 2.

Table - 2 Population of *Rhinoceros unicornis* in the year 1985 and 1991.

Year	Adult		Un - identi Fied Sex	Sub adult			Un-identified Sex	Total
	Male	Female		Male	Female	Calf Upto 1 Yr.		
1985	23	23	-	7	2	-	10	65
1991	28	41	5	-	1	8	14	97

Rhino Poaching : Poaching presents the greatest threat to the survival of rhino In OWLS 43 rhinos were killed by poachers Indian between the year 1980 and 1993, while 47 rhinos died due to natural causes. Details of yearwise mortality of rhinos in OWLS are shown in Table-3

Table - 3 Yearwise mortality of Rhinos in OWLS.

Year	Natural Death	Rhinos Killed by Poachers	Total
1980	02	03	05
1981	03	02	05
1982	08	05	13
1983	09	04	13
1984	07	03	10
1985	01	08	09
1986	01	03	04
1987	03	04	07
1988	02	05	07
1989	03	03	06
1990	01	Nil	01
1991	02	01	03
1992	03	02	05
1993	02	Nil	02

Rhino Conservation Approach

To protect the endangered *Rhinoceros unicornis* in Assam, the State of Assam initiated several measures since the beginning of this century. In the year 1915, the Govt. of Assam enacted the Assam Rhinoceros Prevention Act, prohibiting the hunting of rhinos in unclassified State forests. Subsequently the Assam Rhinoceros Preservation Act, Prohibiting the hunting of rhinos in unclassified State forests, was enacted. Further the Indian Wildlife Protection Act 1972 (adopted in Assam in 1976), has also provided protection to our wildlife including the Indian rhinos.

Indian action plan for rhino conservation includes : (i) Habitat protection and restoration, (ii) Creation of corridors for migration, (iii) Proper communication network, (iv) Anti-poaching squads and strike force, (v) Training of wildlife personnel, (vi) Arms training to protecting staff, (vii) Research and monitoring (viii) Eco-development works, (ix) Education and public awareness programme, (x) Relocation of enclaved villages through persuasion, (xi) Veterinary care, (xii) Translocation of animal for rehabilitation and captive breeding (xiii) Development of intelligence network and (xiv) Reward for good work and case detection.

Anti-poaching Approach at OWLS : The overall strength of forest staffs at OWLS, engaged for the protection of rhinos and its habitat is summarised in Table-4.

Table - 4 Forest staff at OWLS for the protection of Rhinos.

Category	Number
Forest Ranger	1
Deputy Forest Ranger	1
Forester - I	9
Forester - II	3
Forest Guard	19
Game Watcher	9
Boat man	9
Mahut	9
Grass cutter	5
Driver	2
Dak-Runner	1
Office Peon	1
Chowkidar	1
Total	70

The OWLS have divided the sanctuary into 22 sub areas- (1) Ramdas Tapu, (2) Belsiri, (3) Nisalmari, (4) Ramkong, (5) Amulya, (6) Pachnoi 1, (7) Pachnoi 2, (8) Pachnoi 3, (9) Pachnoi 1/2 left, (10) Magumari, (11) Bontapu, (12) Gaspara, (13) Tinieona, (14) Barleo Tapu, (15) Satsimalu (16) Kasomari, (17) Bejimari, (18) Katasali, (19) Ragapara, (20) Ghatpara, (21) Old Orang, (22) Chandanpur.

Encroachment Threat : It was observed that the entire area of OWLS is surrounded by the villages. Even in the southern side, the islands of the river Brahmaputra, are now threatened with encroachment. It is learnt that the District Authorities of Sonitpur are planning to allocate the char area of Brahmaputra river namely Ramdas Tapu, Pancha Tapu, Sonit Tapu and Morasali Tapu. It consists of an area of around 100 hectare Government Khas land adjoining OWLS, but maintained by the Forest Department of Assam.

Discussion

The poaching poses the greatest threat to the survival of the Rhino population in OWLS. The prime reason for poaching is the high value for the rhino horn in the international market, as the rhino horns are still used by traditional medicine manufacturers in some Asian countries (Martin 1989, 1990; Martin and Martin 1991; Nowell *et al* 1992; Loh and Loh 1994). Due to the ever increased demand and costs of rhino horn in international market of Asian countries, the killing of rhinos by poachers in Assam has become inevitable. However the authorities of OWLS have been able to protect the rhinos in the sanctuary to a great extent despite severe threats from poaching activities. This is evident from the fact that during the period from 1980 to 1993 over 550 Rhinos were killed by poachers at Kaziranga National Park, Assam (Talukdar, 1994), the poaching rate per year at Kaziranga National Park is 39.28, while during the same period 43 rhinos were killed in Orang Wildlife Sanctuary, the poaching rate per year is 3.07. But still the well organised poachers are posing a great threat to the rhino population in OWLS and a challenge to the forest staff at OWLS to protect the existing rhino population in the area.

The OWLS is also threatened with encroachment activities. If the encrochers are allowed to settle in the char areas as mentioned in the findings, the grazing livestock inside the sanctuary will increase and thereby it will pose serious threat to the habitat of OWLS. Moreover, the riverian areas of the river Brahmaputra being external extension of the habitat are strategically important from the point of view of poachers. mostly come from the southern part of the river Brahmaputra. Combating poaching activities originating from the areas which serves as "Launching Pads", should be an integral part of the conservation strategy in OWLS.

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