

# STATUS OF RHINOCEROS UNICORNIS IN MANAS NATIONAL PARK

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## 1. INTRODUCTION

Indian One-horned Rhino, one of the five surviving species of rhinos in the world namely, the African black rhino (*Diceros bicornis*), African white rhino (*Ceratotherium simum*), Sumatran rhino (*Dicerorhinus sumatrensis*), Javan rhino (*Rhinoceros sondaicus*) and Indian rhino (*Rhinoceros unicornis*), is found only in small numbers in Manas at present.

## 2. HABITAT

About two thirds of the park constitutes an ideal habitat for rhino (S. Deb Roy: Tiger paper, 1991). The habitat of rhino in Manas comprises of open grasslands interspersed with marshes, swamps, and small water bodies called *Beels*. The grassland is of two types: the drier savannah, and a more swampy Terai. Both have wooded forest of the semi-evergreen or evergreen type in the immediate vicinity. Regarding the nature of these grasslands, two theories are in vogue. As per one theory, Savannah and Terai are edaphic-climaxes caused due to soil-conditions. Terai type occurs in areas with high water-table and successive layers of debris, humus, sand, silt, and clay. Savannah occurs in proximity of the Bhabhar where the water table is low and soil is a dry sandy loam with a layer of humus. Another theory, while not refuting the role of soil conditions, says that the grassland as a whole is a stage of arrested succession, i.e. biotic-climax caused due to the regular practice of burning the grasslands. Natural springs are common in the Terai region, and these are the places where all types of wild animals, including the rhino, congregate during the drier months.

Manas, along with Kaziranga once formed part of a contiguous and extensive rhino habitat in eastern India which is now reduced to small pockets. In earlier times, the population of rhino in Manas interbred with that of North Bengal forests on the western side, and with Orang, Pobitora, Bamadi and Kaziranga on the eastern side. But now, due to fragmentation of the forests and development of human habitation in-between, the rhino population in Manas has become isolated and is probably undergoing genitic drift.

To the question as to why the rhino population in Manas has never been as large as that of Kaziranga, inadequacy of wallowing space is cited as a limiting factor for population growth. Indeed there seems to be a strong correlation between rhino distribution and rainfall distribution, drier zones with longer seasons like Manas enjoying smaller populations. Manas itself has a vast dry and rocky terrain to the north called Bhabhar where rhino population seldom ventures. But for the Ai, Beki and Manas rivers, most of the streams and *nallahs* are seasonal, and do not allow for sufficient wallowing for the rhino. Though the larger among *Beels* and perennial, most of them are nothing more than shallow natural depressions seasonally storing rainwater. Among the grasslands too, savannah is a relatively drier type.

In the past, locations in Manas national park where good chances of siting a rhino existed were, Garuchara, Rabang, Gundabil, Sarpuli, Lathajhar, Biati, Panbarijhar, Raisinglazhar (all under Bansbari Range), Sikangandha, Bilattari, Makibaha, Sanmari nala, Koraibarizhar, Bansbari Nala (all under Bhuyanpara Range), Sandan Nala and Gabharukhunda Nala (all under Panbari Range) (See map attached). The overall population was estimated to be more than 80 individuals which was slowly increasing prior to the Bodo agitation (S. Deb Roy: Tiger Paper, March 1991) though systematic census was possibly not carried out for the rhino. The park was affected since 16.02.89 when the first armed attack occurred at Lafasari Beat under Panbari range, where two staff were killed. This was followed by a series of gory attacks on the Beats and Camps, and the resultant evacuation of staff from the interior locations in Panbari and Bhuyanpara Range. This in turn had left the habitat of rhino under

these two ranges unguarded and vulnerable to poaching. Monitoring of rhino populations could not be done on regular basis due to disfunctioning of the camps and tenuous law and order situation. For a while, Bansbari Range was relatively less affected by the violence and monitoring was carried out regularly. But even this could not be sustained after the attack on Bansbari Range H.Q. in march 1993 in which the Range Officer himself was seriously wounded. Miscreants thereafter took advantage of the situation, and poached 22 rhinos in Bansbari Range in 1993 alone. Most of the poaching was by gunshot. Presently, the rhino population in the park is not expected to be more than 10 individuals based on direct sightings and hoof marks near waterholes. This is mostly confined to Lathajhar, Garuchara, Giat, Narayanguri areas. The exact numbers, composition, pattern and viability of the population can be determined only after conducting a systematic census.

### 3. MORTALITY

A total of 53 rhino deaths were reported since 1990 due to natural causes as well as poaching. The mortality details year wise are given in Table 1, below.

**Table 1: Losses of rhino in Manas National Park**

Year	Poached	Other	Total
1990	1	3	4
1991	3	2	5
1992	11	4	15
1993	22	1	23
1994	4	-	4
1995	1	-	1
1996	-	1	1
1997	-	-	-
1998	-	-	-
<b>Total</b>	<b>42</b>	<b>11</b>	<b>53</b>

### 4. FINANCIAL ASSISTANCE FOR RHINO CONSERVATION

It is worth mentioning that the fund under Rhino Conservation Plan Scheme is being allotted only for the payment of salary and wages of the staff since the last few years. Even the financial assistance under the Schemes for Project Tiger, Eco-development and Biosphere has been erratic and is meant only for the general management work in the Park. The details of expenditure are given below in Table II.

### 5. THREATS

One of the main threats to rhino in Manas has been poaching, partially due to growing militancy in the area and inadequate protection measures. The second alarming threat is the very low population which may not be in viable numbers.

### 6. IMMEDIATE STEPS TO BE TAKEN FOR THE RESTORATION OF RHINO POPULATION

Though most of the rhino habitat is intact and continues to enjoy greater diversity in plant species palatable to rhino, the population of rhino under some of the habitat in Panbari and Bhuyanpara Ranges seems to have been almost wiped out, and that in the rest of the habitat under Bansbari Range reduced to below threshold levels. In order to restore the past glory of the park and ensure that the rhino population in Manas is not totally wiped out, a strong armed contingent may be deployed at Uchilla and other identified locations from where anti-poaching operations can be undertaken effectively.

It is equally important to know the exact number and composition of the remaining population of the rhino. A census is required to be conducted as and when the funds and armed personnel are made available. Once this is done, further strategies, including translocation of some individuals from other areas if needed, can be formulated to save rhinos of the Manas National park from extinction.

Table II: Statement of Fund Allocated and Utilized under Plan Scheme

Year	Scheme	Total amount sanctioned (Lakhs.)	Amount utilized	Remarks
1995-96	Project Tiger	95.55	70.18	Only recurring expenditure is done
	Biosphere	13.45	-	The amount was not released by State Govt.
	Eco-development	5.20	-	The amount was not released by State Govt.
1996-97	Project Tiger	86.47	86.47	
		16.30	16.30	Unspent balance of 95-96 revalidated for 96-97
	Biosphere	47.00	47.00	
		13.45	13.45	Unspent balance of 95-96 revalidated for 96-97
	Eco-development	8.80	8.80	
1997-98		5.20	5.20	Unspent balance of 95-96 re-validated for 96-97
	Project Tiger	110.30	58.35	Only salary and wages of the staff
	Biosphere	30.00	-	Fund not released by the State Govt.
	Eco-development	10.25	-	Fund not released by the State Govt.
1998-99 (Dec '98)	Project Tiger	70.00	51.00	Only salary and wages
	Biosphere	30.00	-	Fund not released by the State Govt.
		30.00	30.00	Unspent balance of 97-98 re-validated for 98-99
	Eco-development	-	-	
		10.25	10.25	Fund not released by the State Govt.

\* Note: Under the Rhino Conservation Scheme, the fund was provided only for the salary of the staff by the State Government.

# Manas National Park

