

A STATUS REPORT ON POBITORA WILDLIFE SANCTUARY

INTRODUCTION

50 km east of Guwahati on the southern bank of the Brahmaputra River, in the District of Morigaon, Assam situates the Pobitora Wildlife Sanctuary. It was originally a grazing Reserve (P.G.R.) before 1971 providing grazing facilities to the surrounding villages together with permanent Bullalo "Khuties". Finally, during 1971, two P.G.Rs covering an area of 1,584.62 hect. were constituted into a Reserve Forest vide govt. notification No. FOR/SETT/542/65/54, dt. 8/11/71.

Due to increase of rhino population, more areas were subsequently added to the Pobitora Reserve Forest and was declared as Pobitora Wildlife Sanctuary vide Govt. notification No FWR19/87/39 dt.16/7/87. Pobitora proved to be a suitable homeland for rhino and its population showing considerable increase in last decade. Considering this the Sanctuary area is extended to 38.84 km². vide govt. notification No. FRS 19/87/152 dt. 17/3/98.

BASIC INFORMATION

The climate of the Pobitora W.L. Sanctuary can be treated as sub-tropical monsoon type with three district season. The dry mild winter which experience occasional showers i.e. Nov. to Mid Feb. This period has an average maximum temperature of 20^o C and average minimum temperature of 9^o C. The humidity at this time is 40%. This is followed by a humid and windy summer i.e. from mid Feb to May with maximum temperature of 35^o C and minimum of 12^o C. The latter part of this period experiences rains.

The rainy season, i.e. from May to Sept., experiences an average rainfall of 2000mm. This period is both hot and humid. The maximum average temp being 25^o C and humidity is above 95%.

The entire area is part of the Brahmaputra flood plains. Being low-lying it is subject to annual floods. The soil is termed as fertile clayey-loam with silt.

The Garanga Beel and Haduk Beel are the perennial sources of water in the Sanctuary. The shallow nallahs also scattered all over the sanctuary. Though there is no any water scarcity in the sanctuary after heavy flood this year all the wetlands were heavily silted.

FLORA AND FAUNA

The vegetation of the sanctuary is classified in three distinguished forest type.

- 1) Eastern wet alluvial grassland
- 2) *Barringtonia* swamp, Forest.
- 3) Low alluvial savannah (*Salmania-Albizzia*) wood land

Due to excessive grazing for years together, a 'PAN' has already been formed on the soil for which growth of grasses inside the Sanctuary are stunted comparatively than similar areas in out-side. The intensity of grazing is highest during the winter season.

An area of 1 km² area was fenced up during 1990 for releasing *Cervus eldi eldi* (Manipur brow-antlered deer) at the heart of the Sanctuary. As a result of protection from grazing, better growth of grasses and profuse regeneration of *Albeggia procera* (Koroi) could be seen in this area. A thin layer of tree belt covers the southern corner of the Sanctuary along the bank of Garanga Beel. This part is comparatively a bit higher than the rest of the area.

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a) Tree land	13.09%
b) grass land	72.25%
c) Perennial water logged area	10.61%
d) Swampy area	4.05%

The following species are commonly found on the Sanctuary:

Albezia procera, Salmainia malabaricum, Baringtonia acutenguia, Strabler asper, Streculia vilosa, Triwia mediflora, Casca fistula, Tetramilis nudiflora, Legestromea flosregance, Ugenia spp, Ficus spp, Lenea grandis, Toona ciliata, Erianthus ravanae, Saecharum elephantimus, Imparata cylindrica, Pollinia ciliata, Phongmites kakra, Saetherum munja, Arundo dank, cynodon doctylon, Lopomea reptans, Enhydra fluctuans etc.

Pobitora W.L. Sanctuary is already included in the world map for the highest density of rhino population. Apart from rhino the other mammals recorded are :

- | | |
|---------------------------|-------------------------------|
| 1. Common leopard | 12. Feral buffalo |
| 2. Jungle cat | 13. Flying fox |
| 3. Fishing cat | 14. Short nosed fruit bat |
| 4. Leopard cat | 15. Rhesus macaque (visitors) |
| 5. Wild boar | 16. Barking deer (visitors) |
| 6. Large Indian civet cat | 17. Grey mask shrew |
| 7. Small Indian civet cat | 18. Common house rat |
| 8. Common fox | 19. Three striped squirrel |
| 9. Jackal | 20. Small Indian mongoose |
| 10. Rufous-tailed hare | 21. Crab eating mongoose |
| 11. Chinese pangolin | 22. Smooth Indian otter |

Apart from mammals, so far 36 spp. of fish and eight species of fresh water turtle & terrapin were checklisted.

Pobitora W.L. Sanctuary is a birds paradise. So far 214 spp of birds were check listed. The waterfowl census has been carried out for last 9 years continuously. First year we have counted more than 20,000 birds inside the sanctuary.

RHINOCEROS UNICORNIS (POPULATION DYNAMICS)

When Pobitora was declared as R.F. in the year 1971 only 8 rhino's were sighted. After introduction of forest management in Pobitora the rhino population started increasing visibly up to 56. In 1987 scientific grassland management was introduced in these areas too following the good result of the system yielded at Kaziranga National Park and Orang Wildlife Sanctuary.

The census result of Pobitora W.L. Sanctuary is given below:

YEAR	ADULT			SUB-ADULT			CALF	TOTAL
	M	F	U	M	F	U		
1971								8
1987	17	19		5	8		5	54
1993	18	21	1	1	2	2	11	56
1995	11	28	3	3	1	13	9	68

In a span of 25 years, the rhino population in Pobitora has increased from 8 to 68. However the area under present management is only 16 km², and has remained the same. Though the area is extended up to 38.84 km² the rest of the areas are yet to be handed over to forest department.

Along with that the sanctuary is facing various adverse factors.

- a) Excessive live stock grazing.
- b) Siltation.
- c) Flood.
- d) Encroachment.
- e) Fragmentation.
- f) Poaching.

Due to over population around 25 to 30 rhino's stray out from the sanctuary and raided the adjacent crop. Very frequently, mainly during winter rhinos of Pobitora stray out of Mongoldoi, Panbari, Kurua, Jagiroad, Amsoi, Dharamtul covering an area of 1000 km².

Flood is another major threat to the rhino population. As Pobitora does not have any highland, flood causes major health problems to the animal. This year Pobitora has faced the worst flood of the decade. During flood 2 rhino calves died.

Due to flood, almost all the lakes, *nalas*, were heavily silted causing water scarcity during winter. Hence rhino stray out from the sanctuary for their regular water activities and become easy pray to the poachers.

Encroachment is also a problem to the sanctuary. Around 300 *Bighas* of land were encroached. The entire matter is sub judice at Guwahati High Court.

Fragmentation is also a major problem to the rhino population. Due to large scale settlement of human population in adjacent areas, all the migration track was blocked, which may create heterozygotical effect on entire population.

Livestock grazing also one of the acute adverse problem to the sanctuary. Around 50% of the total grass land have been degraded due to overgrazing of livestock. In few areas the grass height is found to reduce to 25 to 30 cm. In the last flood the sanctuary was under water continuously for more than 40-45 days, which have also affected greatly to the grass land.

Poaching is still a uncontrollable problem to the Sanctuary. The rate of poaching at Pobitora W.L. Sanctuary is 3.30%. The detail poaching record are given below.

YEAR	BULLET	PIT	ELECTRO- CUTION	POISON	TOTAL
1987	-	-	-	2	2
1988	3	-	-	-	-
1989	2	-	2	-	4
1990	2	-	-	-	2
1991	1	-	-	-	-
1992	1	-	2	-	3
1993	4	-	-	-	4
1994	-	-	-	-	4
1995'	2	-	-	-	2
1996	1	-	4	-	5
1997	3	-	-	-	3
1998	3	-	1	-	4

From the year 1998 a very strong Initiative were taken to down the poaching. Due to overall effort of the forest staff 11 poachers were arrested, One rhino horn was recovered and 6 arms along with ammunition and other poaching materials were recovered.

INFRASTRUCTURE

The Sanctuary is manned by 76 Staff (regular) and is having 21 camps in and around the Sanctuary. The infrastructure, presently in use for anti-poaching activity is as follows

- 1) Vehicle 1 (Maruti Gypsy) donated by U.S. Fish and Wildlife Deptt. Through Ronthombhore Foundation.
- 2) Arms & Ammunition a) 315 Rifle - 22 Nos.
 b) DBBL (12 Box) - 5 Nos.
- 3) Wireless a) VHF - 1 set.
 b) Walkie Talkie - 15 Sets (9 Sets donated by U.S. F&W Deptt. through Rhino Foundation.
- 4) Boat a) OBM - 1(Yamaha engine with fibre boat.
 b) Country Boat 1 Nos.
- 5) Elephant 5 Nos.

EXPENDITURE

In a nutshell, the expenditure incurred for Pobitora W.L. Sanctuary for the last three Financial Years are shown below. The major component of the expenditure is salary and wages for both Non-Plan and Plan heads.

Year		Amount Sanctioned(Rs)	Amount Spent (Rs)
	(For both Laokhawa & Pobitora WL)		
1995-96	Plan	61,28,650	21,95,446.00
	Non Plan	30,43,000.00	9,25,848.00
	Subtotal	91,71,650.00	31,21,294.00
1996-97	Plan	56,15,438.00	26,66,910.00.
	Non-Plan	27,29,000.00	7,68,609.00
	Subtotal	83,44,438.00	34,35,519.00
1997-98	Plan	62,82,116.00	27,28,843.00
	Non-Plan	30,35,000.00	11,04,648.00
	Subtotal	93,17,116.00	38,33,491.00

