

**C. STATUS OF RHINO AND HORN STOCKPILES
IN MANAS NATIONAL PARK**

Mr. Abhijit Rabha

Rhino conservation has been found to be more challenging in Manas National Park especially after the socio-political unrest during the 1990s. However, public and political support for Manas National Park has been exceptional at the most local level of villages and the political level. Abhijit Rabha further added how the officers and the front liners fought without any infrastructural assistance and produced amazing results in determining the success and effectiveness of conservation and environmental management. These efforts led to the deaths of about 15 poachers and illegal tree fellers from 2001-2003. In 2002, a study on the population of elephants determined that the Park held 678 individuals

Manas National Park was opened for overseas tourists and the management plan for Manas property was written down. Surveys determined that Asiatic buffaloes in the WHS number about 210 individuals. The influential Bodoland Liberation Tiger (BLT) force surrendered in early 2000, resulting in peace and political stability in the area. The officials, together with proactive group of All Bodo Students Union (ABSU), ex-BLT members, have contributed towards formation of the ecotourism society. Former poachers joined in, became active conservation volunteers, and were provided physical training. Mainao, a rescued female rhino, was shifted to Manas from Kaziranga National Park by the Wildlife Trust of India under the Wildlife Rescue and Rehabilitation Program. The animal was released into the wild by the deputy chief of Bodoland Territorial Council, thus demonstrating the Council's political will and support. Since then, two more rhinos and six elephants have been moved to Manas for reintegration with the wild population. There has been a boost in ecotourism at Dwimari and Kokilabari. Strategies aimed at building awareness are in place to engage local communities (via training of school teachers and publication of educational materials), and a project securing alternative livelihoods and health (as part of Pigmy Hog Conservation Project - supported by the Darwin Initiative) and livestock healthcare (training of mobile healthcare workers) has been developed.

Abhijit Rabha also highlighted the importance of standardizing procedural mechanisms for better monitoring, status reporting, GIS analyses, and interpretation of results. This requires deployment of properly skilled and motivated frontline staff and a strict data quality control at observer and recording levels and support from Assam Forest Department. This could be achieved by effective and formalized training programs for field personnel and trainers (a first workshop like this is being held as part of a collaborative project with Assam Department with funding from the Darwin Initiative). Mr. Rabha also emphasized the importance of effective grassland management and investigating the impact of their change from cattle grazing, annual burning, illegal extraction and natural events like flood. He said, "Realizing effective monitoring and management is key to securing the future of the Assam rhino requires the concerted effort of all involved - from field security and monitoring, data collection and analyses, reporting to decision making."

II. (11.10 AM-1.00 PM)

**D - STATUS OF RHINO AND HORN STOCKPILES
IN PABITORA WILDLIFE SANCTUARY**

Mr. Surojit Dutta

The Pabitora Wildlife Sanctuary (38.81 km²) is located in a flat terrain in the flood plains of river Brahmaputra, a basin-like structure in the midst of Mayang, Kamarpur and Monohar hillocks finely-dotted with water bodies, grassland and tree forest. The area is part of Brahmaputra River floodplain; as such, water remains year-round in different lakes and swamps which makes Pabitora ideal rhino terrain. Pabitora is 60% grassland, 18% wetland, 20% woodland and 2% other kinds of habitat. Pabitora Wildlife Sanctuary (PWLS) has been successful in rhino conservation. Table 4 summarizes the area's rhino census results:

Table 4. Rhino Census in Pabitora Wildlife Sanctuary

Year	Adult	Sub Adult	Calf	Total
1987	36	13	5	54
1993	32	5	11	56
1995	42	17	9	68
1999	43	12	19	74
2004	47	11	21	79
2006	48	12	21	81

PWLS has witnessed a steady increase in its rhino population. One of the major problems that the Sanctuary management faces is poaching, and, as the area of Pabitora is very small, the straying of rhinos from the sanctuary also leads to rhino poaching outside the rhino protected area. Others problems include degradation of habitat, immense biotic pressure, annual floods, overhead high tension power, human- animal conflict, siltation and scarcity of water during dry seasons, invasion of Ipomoea spp into grasslands grazing by livestock from fringe areas to protected areas.

However, major steps such as intensive patrolling inside the protected area and awareness programs have also been organized. Additionally, interaction sessions with Eco-Development Committees are being carried out and intelligence network is being made effective. Fringe area cattle also are vaccinated and the Park's area is being extended to ensure rhino security. Tourism has also increased from the past years.

**E - STATUS OF RHINO AND HORN STOCKPILES
IN ORANG NATIONAL PARK**

Mr. Sukumar Momin

Rhino conservation in Orang National Park began its momentum in 1972, with an official estimate of rhinos in the area. Covering 78.80 km², Orang National Park was declared as wildlife sanctuary in 1985 and in 1999 was upgraded into a National Park. The various habitats found in Orang are swap grasslands, moist deciduous forests, wet alluvial grassland and Khoir Sissoo forest. Orang also is home to many other species including the royal Bengal tiger, Asiatic elephant, hog deer, wild boar, 15 species of reptiles, and other animals. Table 5 details the rhino population trends since 1972:

Table 5. Rhino Population Trends in Orang National Park

Year	Adult			Sub Adult			Calves	Total
	Male	Female	Unsexed	Male	Female	Unsexed		
1972	10	13	3	3	2	-	4	35
1985	23	23	-	7	2	-	10	65
1991	28	41	5	-	1	14	8	97
1999	17	17	1	3	2	-	6	46
2006	28	27	-	-	-	4	9	68

Problems and threats include damage to habitat composition, severe poaching, lack of community participation, insufficient fund flow, weed invasion in grasslands, poor habitat connectivity, and declining grasslands (while woodlands have increased).

Nevertheless, Orang could support 100 to 150 rhinos. If NGOs and local people support conservation, the possibility of increasing the rhino population in the park can be enhanced, particularly if good awareness and education initiatives, coupled with ecotourism, is in place.