MANAS TIGER RESERVE

Manas Tiger Reserve (MTR) spans across the districts of Kokrajhar, Chirang, Buxa and Udalguri in north-west Assam. To the north, it is separated from the Royal Manas National Park of Bhutan by the River Manas and its tributaries- Beki and Hakua; while to the west, it is separated from the Buxa Tiger Reserve of West Bengal by the River Sankosh. The area has a unique distinction of being a Natural World Heritage Site, a Tiger Reserve, an Elephant Reserve, a Biosphere Reserve and an Important Bird Area. Evolutionarily, it is the entry point of tigers into India. It forms part of a large tiger conservation landscape which includes Buxa-Nameri-Pakke-Namdapha tiger reserves and protected areas of Bhutan and Myanmar.

Area of the tiger reserve

Core/critical tiger habitat : 526.22 sq.km Buffer/peripheral area : 2310.88 sq.km

Total : 2837.31 sq.km.

Location

Latitudes : $26^{0}30$ 'N to $26^{0}45$ ' N Longitudes : $89^{0}45$ ' E to $92^{0}30$ ' E

Habitat Attributes

Flora:

In general, the vegetation comprises of Sal (*Shorea robusta*), scrub forests, old plantations (in buffer areas), semi-evergreen and mixed deciduous forests, interspersed with grasslands and riparian vegetation (in core area).

The habitat comprises of Sub-Himalayan High alluvial Semi evergreen forests, Eastern *Bhabar* Sal type Forests, East Himalayan Moist mixed deciduous forests, Eastern wet alluvial grassland, low alluvial savannah woodlands, Riparian fringing forest and *Khair-Sisoo* forests.

Fauna:

The tiger reserve has tremendous faunal diversity and the species include: 61 mammals, 450 birds, 42 reptiles, 9 amphibians, 79 fishes, more than 200 butterflies and 100 invertebrates. The habitat supports (IUCN listed) 1 critically endangered, 7 endangered and 10 vulnerable mammals. Besides, there are 5 critically endangered, 2 endangered, 18 vulnerable bird species, alongwith 4 endangered and 9 vulnerable reptiles. The avifauna is diverse with more than 450 bird species.

The rich faunal assemblage in Manas is due to its unique bio-geographical location which is at the confluence of Indo-Malayan, Indo-Chinese and Australasian pathways, thus making it an important refuge for several endemic and charismatic wildlife species. It also provides an ideal habitat, ranging from high altitude Himalayan dense canopied forests to the sub-tropical woodlands, alluvial floodplain grasslands and riverine ecosystems in the lower elevations.

Tiger Status

The Manas habitat has a very good potential for harbouring tiger. As per the 2010 country level assessment of tiger, the density was assessed as 1.8 tigers per 100 sq.km.

Core

The core area has the status of the National Park with an exclusive tiger agenda. Though, the area has a long history of wildlife conservation dating back to 1905, several important species like the rhino and other herbivores suffer during the insurgency period that lasted from 1989 to 2003. Restoration of law and order in the landscape and strengthening of protection infrastructure is fostering recovery of several species. The protected area also regained its UNESCO heritage site status in 2011.

Buffer

The buffer area comprises of five territorial forest divisions with considerable biotic pressure. The insurgency period between 1989 to 2003, alongwith encroachment and altered land-use patterns significantly impacted the quality of forests, especially in forest blocks such as Kachugan, Bengtol, Chirang, Khalingduar and Bhairabkunda.

Corridor

Manas habitat is contiguous with the Royal Manas National Park of Bhutan, separated by the Manas

river in the North. To its west, the reserve is linked with the Ripu Chirang Elephant Reserve and the Buxa Tiger Reserve of West Bengal (separated by the river Sankosh). Further, there are linkages with the Bornadi Wildlife Sanctuary as well.

The Manas-Ripu Chirang-Buxa-Jaldapara-Gorumara-Singhalila landscape is large with an area of about 7,200 sq.km. The forest connectivity in the Brahmaputra plains through Manas-Sonai-Rupai-Orang-Nameri is patchy and fragmented, but the landscape is connected through the forests of Bhutan. On the Indian side, "stepping stone" connectivity exists between Gorumara, Jaldapara, Buxa, and Ripu Chirang through the district of Jalpaiguri. Connectivity between Ripu Chirang, Manas and Sonai-Rupai-Nameri is degraded on the Indian side. Movement of elephant and tiger has been recorded in several of the above linkages.

Managerial Issues

There are several managerial issues which include: field protection, day to day monitoring of tiger and reintroduced rhinos, restoring the protection infrastructure, capacity building of frontline staff, regulating transboundary vehicular traffic, addressing insurgency, providing ecologically viable livelihood options to local people in buffer and close coordination with Bhutan.

Good Practices

Involvement of local communities (especially unemployed youth) for protection and eco-tourism, rebuilding reserve infrastructure and rhino reintroduction.